Proposed changes to the ULEZ (start date and emissions standards)

Report to the Mayor on consultation

November 2017

MAYOR OF LONDON

TRANSPORT FOR LONDON

EVERY JOURNEY MATTERS

Contents

List of appendices

(attached separately)

1. Introduction

1.1 Purpose of this report

1.1.1 To tackle London's poor air quality the Mayor and Transport for London (TfL) developed proposals to alter the Ultra Low Emission Zone (ULEZ). The purpose of this report is to inform the Mayor of the results of a public and stakeholder consultation on this, which took place between Tuesday 4 April 2017 and Sunday 25 June 2017.

1.1.2 This report describes how that consultation was carried out, analyses stakeholder and public responses, and makes recommendations to the Mayor about the issues raised. It should be read in conjunction with the consultation material published by TfL[1], which contains details of the proposed ULEZ changes, as well as other information about their likely impacts and other relevant matters. Particular attention should be given to the detailed Consultation and information document that was published as part of the consultation material.

1.1.3 The Stage 3a consultation included a statutory consultation on changes to the ULEZ proposals confirmed under the previous administration. If confirmed, the ULEZ will be introduced on 8 April 2019, 17 months earlier than previously planned and would require diesel vehicles to meet a particulate matter (PM) standard in addition to a standard for oxides of nitrogen (NO_x). The consultation proposals are described in further detail in Chapter 2 of this report.

1.1.4 This consultation was the third stage of a series of consultations to inform the development of the Mayor's air quality improvement proposals. These stages are summarised in Figure 1.

[1] https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-2/?cid=airquality-consultation

Stage 1 (5-29 July 2016): A consultation hosted on the Talk London website on initial ideas to tackle air quality. The results are now here: http://data.london.gov.uk/dataset/clean-air-consultation-july-2016	COMPLETE
Stage 2 (10 October-18 December 2016): A process incorporating a statutory consultation to introduce the Emissions Surcharge (also known as the T-Charge), and a non-statutory consultation on ideas for how the ULEZ could be improved. The results are now here: https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-two/	COMPLETE
Stage 3a (4 April-25 June 2017): A statutory consultation on the proposal to introduce the ULEZ early in central London on 8 April 2019 and to strengthen the emissions standards to include particulate matter. The Mayor will then make a decision on whether or not to confirm this proposal, with or without modifications.	THIS CONSULTATION
Stage 3b: A statutory consultation on the proposal to expand the ULEZ boundary beyond central London.	EXPECTED LATE 2017

Figure 1: Summary of air quality improvement consultation stages

1.2 Structure of this report

1.2.1 Our analysis of the consultation responses and potential policy recommendations are presented for the Mayor's information. The structure of this report is as follows:

- **Chapter 1 – Introduction:** The remainder of this chapter provides the background to the consultation, including the legislative framework and a summary of the recommendations
- **Chapter 2 – Description of the revised ULEZ proposals:** A summary of the proposals and their impacts
- **Chapter 3 – The Stage 3a consultation process**: Sets out the consultation process undertaken by TfL
- **Chapter 4 – Public, community and business responses to the consultation:** Provides a summary analysis of the consultation responses received in terms of the method of response, respondent type and their travel behaviour
- **Chapter 5 – Analysis of public responses:** Provides an analysis of the responses to the consultation from the public, community groups and business in terms of the numbers responding to the consultation, support and opposition to the proposals and the key issues raised in the consultation responses

- **Chapter 6 – Campaign responses and petitions:** A summary and analysis of the campaign run by an environmental group, which generated a large number of responses to the consultation and of the two petitions received in relation to the ULEZ
- **Chapter 7 – Stakeholder responses:** Does the same as Chapter 5, but for stakeholder responses
- **Chapter 8 – ULEZ issues raised:** Sets out our response to the issues raised specifically in relation to the ideas for altering the ULEZ
- **Chapter 9 – Other issues raised:** A summary, analysis and response to any other issues raised by respondents to the consultation
- **Chapter 10 – Operational issues not raised in consultation**: Describes issues that have arisen following further exploration of options for delivery of the ULEZ scheme at best value
- **Chapter 11 – Conclusions and recommendations:** Sets out our overall conclusions and recommendations to the Mayor

1.2.2 The Mayor is advised, when considering this report, to take into account the individual consultation responses themselves, full copies of which have been provided for his consideration.

1.3 Air quality and health in London

1.3.1 The objective of the Mayor's proposals is to improve air quality in London. The health impacts of the two pollutants of concern in the Capital are listed below:

- **Nitrogen dioxide (NO_2):** At high concentrations, NO_2 causes inflammation of the airways. Long-term exposure is associated with an increase in symptoms of bronchitis in asthmatic children and reduced lung function and lung growth
- **Particulate matter (PM):** Long-term exposure to particulate matter contributes to the risk of developing cardiovascular and respiratory diseases, as well as lung cancer. Research shows that particles with a diameter of 10 microns and smaller (PM_{10}) are likely to be inhaled deep into the respiratory tract. The health impacts of particles with a diameter of 2.5 microns and smaller ($PM_{2.5}$) are especially significant as smaller particles can penetrate even deeper

1.3.2 London's air quality has improved significantly in recent years and is now considered compliant for all air pollutants for which the European Union (EU) has set legal limits (called 'limit values'), except for NO_2. The exhaust emissions that give rise to NO_2 are oxides of nitrogen (NO_x), which are made up of both nitrogen oxide (NO) and NO_2. The NO forms additional NO_2 by reacting with ozone (O_3) in the atmosphere. The policy framework and London's responsibility with regard to the main air pollutants is described in the Consultation and information document attached as Appendix I.

1.3.3 Emissions from road transport are a major contributor to poor air quality in the Capital. In 2013, they accounted for 50 per cent of all NO_x sources in London[2]. An equivalent of over 9,000 deaths per year in London is attributed to air quality related illness.

1.3.4 Further information regarding air pollution in the Capital and the legal framework in place to improve it is contained in the Consultation and information document that formed part of the Stage 3a consultation material[3].

1.3.5 In October 2017 new analysis was published indicating that every single Londoner lives in areas exceeding World Health Organization (WHO) guidelines for $PM_{2.5}$ concentrations and that 95 per cent of Londoners live in areas exceeding this limit by 50 per cent.[4]

1.4 ULEZ Variation Order

1.4.1 TfL has legal powers under the Greater London Authority Act 1999 (the 'GLA Act', as amended) to make and amend Road User Vehicle Charging schemes. The Low Emission Zone (LEZ), which seeks to reduce air pollutant emissions in Greater London, was introduced and is operated under these powers. When initially introducing the ULEZ, TfL made a Variation Order ('VO')[5] to make the necessary amendments to the LEZ scheme. This was confirmed by the previous administration on 23 March 2015[6].

1.4.2 TfL also made a VO to make the necessary amendments to the Congestion Charging (CC) scheme to create the Emissions Surcharge (dubbed 'T-Charge') and this was published at the start of the Stage 2 consultation[7]. References to the T-Charge VO in this report are to the published Variation Order.

1.4.3 As part of the Stage 3a consultation a VO (the Greater London Low Emission Zone Charging (Variation and Transitional Provisions) Order 2017 referred to in this report as the '2017 ULEZ VO') was published that would modify the LEZ scheme to introduce ULEZ sooner and alter the emissions standard to include PM. The GLA Act requires that for the VO to take effect and to make the necessary changes to the LEZ scheme to modify the

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[2] London Atmospheric Emissions Inventory (LAEI) 2013
[3] https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-2/
[4] https://data.london.gov.uk/dataset/pm2-5-map-and-exposure-data
[5] https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-2/
[6] https://www.london.gov.uk/mayor-assembly/mayor/mayoral-decisions/MD1463
[7] https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-two/

ULEZ, the Mayor must decide whether to confirm the VO (with or without modifications). He will do this following consideration of the responses submitted in this consultation, together with all other relevant considerations and matters, including our recommendations as set out in this report.

1.4.4 The 2017 ULEZ VO proposed amendments to the LEZ Scheme Order necessary to modify ULEZ, namely:

1) An alteration to the commencement date of the Ultra Low Emission Zone in the defined area of the Congestion Charge Zone
2) An alteration to the transitional provisions to bring forward the end date of the sunset period for residents
3) Specifying an additional PM standard for diesel vehicles
4) Making changes to the payment methods to define and enable payment by app

1.4.5 The VO did not propose any other changes to the operation of the ULEZ scheme, other than minor consequential amendments required to bring the above changes into force.

1.5 Summary of recommendations for the ULEZ proposal

1.5.1 TfL recommends to the Mayor that he confirms the 2017 ULEZ VO, with the following modifications:

- Amendment to wording around which methods of payment will be accepted. The wording will be less specific to allow flexibility to introduce new methods of payment in the future.
- Amending the transitional provisions so that advance payments are only required to be accepted from the launch date of the ULEZ.
- Changing the standard for TfL buses from a Euro V emitting <2.05 g/km of NO_x to a Euro VI standard in line with other heavy vehicles.

1.5.2 Further detail of the reasons behind these changes is set out in chapters 8 and 10.

1.5.3 We consider that our published proposals strike the correct balance in terms of reducing NO_x emissions, without placing undue burden on Londoners.

1.5.4 Therefore, we recommend that the Mayor confirms the VO with the modifications described above. No further modifications are proposed.

1.5.5 If the Mayor decides to confirm the VO (with the proposed modifications), the changes would come into effect as follows:

- From 8 April 2019, relevant vehicles will need to meet emissions standards of Euro 4 NO_x for petrol or Euro 6/VI NO_x and PM for diesel

or pay a daily charge to enter the ULEZ, which will have the same boundary as the Congestion Charging zone

- From 4 April 2022 residents will be liable for the ULEZ

1.5.6 We recommend that the Mayor confirms the ULEZ VO with the modifications above. However, the Mayor is at liberty to decide not to confirm the VO at all or to consider doing so with or without modifications if he judges that appropriate.

2. Description of the revised ULEZ proposals

2.1 Introduction

2.1.1 This section provides an overview of the revised ULEZ proposal, how it was developed and how it is intended to operate. More detail is provided in the Consultation and information document attached as Appendix I.

2.2 Development and history

2.2.1 The ULEZ was confirmed by the previous mayoral administration in March 2015. A brief summary of the confirmed scheme is provided here, with a more detailed description included in the Consultation and information document.

2.2.2 All cars (except taxis, which are subject to environmental requirements through the taxi licensing system), motorcycles, vans, minibuses, buses, coaches and heavy goods vehicles (HGVs) will need to meet exhaust emissions standards or pay a daily charge, when travelling in central London.

2.2.3 The standards are at least Euro 4 for petrol cars and vans, Euro 3 for powered two-wheelers and other L-category vehicles and Euro 6/VI for diesel vehicles.

2.2.4 The ULEZ will cover the same area as the Congestion Charge zone and its standards are in addition to any Congestion Charge or LEZ charges that are already applied. The ULEZ will operate 24 hours a day, every day of the year, including weekends and public holidays.

2.2.5 On 13 May 2016, the Mayor set out ideas to improve the ULEZ and additional requirements for TfL buses[8]. Refined proposals were announced by the Mayor on 5 July 2016 as part of his Clean Air Action Plan[9]. A three-week consultation on this plan was undertaken by the Greater London Authority (GLA), which ran from 5 July to 29 July 2016 (Stage 1). This consultation asked for views on air quality generally and included high level policy ideas for the T-Charge, changes to the ULEZ, additional policy ideas to help improve air quality (such as a national diesel scrappage scheme)

[8] https://www.london.gov.uk/press-releases/mayoral/bold-plans-to-clean-up-londons-toxic-air

[9] https://www.london.gov.uk/press-releases/mayoral/mayor-unveils-action-plan-to-battle-toxic-air

and any other ideas respondents might have. The results of the consultation are available on the GLA website[10].

2.2.6 Informed by the Stage 1 consultation, TfL undertook a Stage 2 consultation, which ran from 10 October 2016 to 18 December 2016. This was a statutory consultation on the T-Charge but also set out policy ideas for future changes to the ULEZ. The Mayor wanted to develop his proposals for ULEZ with the active involvement of Londoners and relevant stakeholders by considering:

- Bringing forward the introduction of the ULEZ to 2019 (currently planned for 2020)
- Extending the ULEZ Londonwide for heavy vehicles (HGVs, buses and coaches) as early as 2019, but possibly later
- Extending the ULEZ from central London up to the North and South Circular Roads for all vehicles as early as 2019, but possibly later

2.2.7 Following the Stage 2 consultation, the T-Charge VO was confirmed by the Mayor on 16 February 2017 and the Mayor requested that TfL proceed with work to develop, and undertake additional consultation and engagement with relevant stakeholders on the suggested change to the ULEZ.

2.2.8 When the Mayor announced this (Stage 3a) consultation on the 4 April 2017, he also described his proposal to expand the ULEZ across Greater London for heavy diesel vehicles, including buses, coaches and lorries, in 2020, and up to the North and South Circular Roads for cars and vans in 2021[11].

2.2.9 Consultation on changes to ULEZ is being done in two parts. Later this year, we plan to consult on proposals to expand the ULEZ on behalf of the Mayor (Stage 3b). The proposals (summarised below) put forward in this consultation (Stage 3a) relate primarily to bringing forward the start of ULEZ in central London.

2.3 Summary of proposals

2.3.1 A detailed description of the proposals, summarised below, and their impacts is provided in the Stage 3a Consultation and information document, attached to this report as Appendix I.

Start date

[10] https://data.london.gov.uk/dataset/clean-air-consultation-july-2016

[11] https://www.london.gov.uk/press-releases/mayoral/mayor-plans-to-introduce-ulez-in-april-2019

2.3.2 It is proposed that the scheme will start on 8 April 2019. This is 17 months earlier than the previously planned start date of 7 September 2020.

Sunset period for residents

2.3.3 Under the current approved ULEZ scheme, residents living in the zone and registered with TfL will receive a three-year, time-limited 100 per cent discount (from September 2020 to September 2023). This is referred to as the 'sunset period' and means they will not have to pay the ULEZ charge during this period.

2.3.4 It was proposed that the start of the three-year sunset period for residents will be brought forward in line with the start of ULEZ. The new sunset period will run from April 2019 to April 2022.

2.3.5 After this date residents will need to comply with the emissions standards or pay a daily charge of £12.50.

Sunset period for disabled vehicles

2.3.6 Under the current approved ULEZ scheme, vehicles with a disabled or disabled passenger vehicle tax class will receive a three-year sunset period (from September 2020 to September 2023).

2.3.7 It was proposed that the sunset period for these vehicles will be extended to approximately 4.5 years (from April 2019 to September 2023), maintaining the original end date of the sunset period.

2.3.8 After this date these vehicles will need to comply with the emissions standards or pay a daily charge of £12.50.

Emissions standards

2.3.9 Under the current approved ULEZ scheme, diesel vehicles need to meet the equivalent NO_x emissions standards for Euro 6/VI.

2.3.10 It was proposed that in addition, diesel vehicles would need to meet the PM standard for Euro 6/VI. As described in the Consultation and information document, this would affect a limited number of Euro 3 and 4 diesel vehicles that meet the NO_x limits but emit six times as much PM as permitted under Euro 6.

2.3.11 Vehicles retrofitted to meet Euro VI standards will also need to demonstrate that they meet Euro VI PM standards. This is in line with government guidance on retrofit certification.

2.3.12 Existing Euro 6/VI vehicles are unaffected by this change.

2.4 Impact on emissions

2.4.1 As with all impact assessments, there is a degree of uncertainty as to how people may respond, especially when taking into consideration the preparation vehicle owners will be doing ahead of the central London ULEZ launch, currently scheduled for September 2020.

2.4.2 As quoted in the Consultation and information document, an earlier implementation of the ULEZ would mean Londoners see the emissions and health benefits sooner. If the scheme were to be introduced in 2019, road transport NO_x emissions in central London would be expected to reduce by an additional 20 per cent in 2019.

2.4.3 Emissions savings would then continue in line with those estimated for the ULEZ in 2020 (ie nearly a 50 per cent reduction in central London road transport NO_x emissions in 2020).

2.5 Integrated Impact Assessment (IIA)

2.5.1 An IIA was carried out to examine the likely significant impacts of the proposal on the environment, health, equalities and the economy. A copy is attached to this report as Appendix J.

2.5.2 Overall, the assessment concludes that in the short term there would be additional impacts including:

- Moderate air quality benefits Londonwide due to reduced NO_2 concentrations in 2019
- Health benefits associated with an additional year of air quality benefits
- Minor adverse impacts on commuter coaches, tourist coaches and sightseeing bus operators entering London and tradespeople, market traders and some independent retailers due to costs associated with either complying earlier with ULEZ or paying the charge
- Minor beneficial impacts associated with an earlier reduction in the average exposure to NO_2 in deprived areas
- Moderate beneficial impacts associated with an earlier reduction in the number of school-age children, older people and pregnant women exposed to exceedances of legal limits for NO_2 concentrations
- Minor adverse impacts on some equality groups including:
    - BAME[12] retail and wholesale industry businesses regularly using vans (light goods vehicles) in central London

[12] Black, Asian and minority ethnic (used to refer to members of non-white communities in the UK)

- School children from low income families due to the increased cost of school trips by coach
- BAME drivers of private hire vehicles (PHVs) who are self-employed
- Groups reliant on charitable or voluntary minibus services (for example, disabled, older people, faith groups)

3. The Stage 3a consultation process

3.1 Introduction

3.1.1 This chapter provides an overview of the Stage 3a consultation, as well as a description of the actions and communication methods employed to promote the consultation itself and elicit views from the public and stakeholders about the proposals.

3.1.2 The primary objective of the consultation process was to understand the views of the public and stakeholders concerning the statutory proposals for changes to the ULEZ.

3.1.3 The first Mayor of London issued statutory guidance to TfL detailing consultation practice, entitled 'Guidance from the Mayor of London on Charging Schemes pursuant to Schedule 23 of the Greater London Authority Act 1999'. This guidance informed the consultation strategy in advance of implementation.

3.2 Consultation stages

3.2.1 This consultation was Stage 3a of a continuing series of consultations on proposals to improve air quality.

3.2.2 In the summer of 2016, the Mayor undertook the first stage of consultation on a number of initiatives to improve the quality of the air and the health of Londoners.

3.2.3 The second stage ran from October to December 2016, focusing on the statutory consultation for the Emissions Surcharge but including a policy consultation on potential changes to the ULEZ.

3.2.4 Stage 3a was a statutory consultation focusing on introducing ULEZ in central London in April 2019, 17 months earlier than originally planned. It also proposed that the ULEZ emission standard be altered to require diesel vehicles to meet a PM standard in addition to a NO_x standard.

3.3 Dates

3.3.1 The Stage 3a consultation commenced on Tuesday 4 April 2017 and closed on Sunday 25 June 2017.

3.4 Publicising the consultation

3.4.1 A marketing campaign was developed to raise awareness of the air quality consultation and encourage customers to have their say.

3.4.2 The campaign included:

- A press release, issued on 4 April, to announce the start of the consultation. The consultation received media coverage from a number of outlets including print coverage in the Evening Standard and City A.M.; coverage in trade publications such as Local Transport Today, Coach & Bus Week and Fleet World; web coverage on BBC News, Bloomberg, Air Quality News and Business Green; as well as in local publications such as Get West London; and broadcast coverage on BBC and ITV local bulletins
- Press adverts in a variety of London media titles including the Evening Standard, Metro and City A.M. Adverts were also featured in specialist press titles and digital display adverts were used
- A notice published in The London Gazette
- Social media tweets, to promote the consultation
- Detailed information about the scheme, supporting documents and an online questionnaire on TfL's consultation portal website at www.tfl.gov.uk/airquality-consultation and this was signposted with banners throughout the TfL website
- A radio advertisement notifying listeners of the air quality consultation across the following radio stations: Capital, Heart, Kiss, LBC, Magic, Smooth Radio London and talkSPORT

3.5 Targeted communications to registered Congestion Charge and other Transport for London (TfL) customers

3.5.1 On 7 April 2017, we sent an email to relevant registered Congestion Charging scheme customers using a customer relationship management system. Around 780,000 customers were emailed.

Table 1: Numbers of emails sent to customers

Customer type	Customers contacted April 2017
Congestion Charge fleets/LEZ	24,239
Drivers	414,383
Cyclists	248,710
Taxis and private hire vehicles (PHVs)	94,262
Total	**781,594**

3.6 Stakeholder communications and meetings

3.6.1 We engaged with stakeholders both in developing the proposals (prior to consultation) and during the consultation itself. We met with a wide range of stakeholders through private briefings, workshops and third-party events.

3.6.2 The Mayor first announced his intention to introduce the T-Charge and to consider accelerating and expanding the ULEZ in June 2016. An online public survey was launched in July 2016 to gather feedback on these policies as well as a range of other policies. We supported this with an email to more than 500 stakeholders promoting the survey.

3.6.3 Between the launch of the survey in July and the beginning of the consultation period in October 2016, we met a number of stakeholders from a range of sectors to gather feedback and help further define the proposals.

3.6.4 A stakeholder breakfast briefing was held on 18 October 2016 as part of the consultation and was attended by 43 stakeholder organisations. Representatives of TfL and the GLA presented the detail of the T-Charge and the ULEZ potential proposals, and also provided an opportunity for stakeholders to ask questions about the schemes and ideas.

3.6.5 The public consultation was supplemented by further engagement with stakeholder organisations, as set out in Appendix E. This was to ensure that stakeholders were well briefed about the potential timetable for the proposed changes, to understand their issues and concerns, and to encourage participation in the consultation.

3.6.6 We identified key stakeholder organisations including the 33 London boroughs (including the City of London Corporation), London Councils, the Metropolitan Police Service, business representative organisations, freight and haulage representative organisations, transport and environment representative organisations, NHS trusts and Clinical Commissioning Groups, government departments including the Environment Agency and other non-departmental bodies, trade and professional associations, London TravelWatch, London Assembly Members (AM) and organisations representing the local community and voluntary sectors.

3.6.7 On the consultation launch date, we emailed 553 stakeholder contacts with a summary of the proposals and a link to our consultation portal (see Appendix B). This email also invited stakeholders to meet us for a further more detailed briefing if they wished to. A further email was also sent out to our database of taxi and private hire vehicle operators.

3.6.8 London boroughs were briefed in advance of the consultation at our regular sub-regional panels.

3.6.9 The policies and consultation were raised and discussed at a number of pre-existing events including the TfL Freight Forum, Freight in the City, the Licensed Private Hire Car Association (LPHCA) Roadshow, the British Vehicle Rental and Leasing Association (BVRLA) policy forum and Greener by Design.

3.6.10 On April 3, a briefing was held to which all London boroughs were invited to talk through the air quality strategy, including the ULEZ proposals. On 16 June, we held a briefing event for stakeholders from the freight and fleet sectors.

3.6.11 On 3 May 2017 A briefing took place with London's emergency services (Metropolitan Police, British Transport Police, London Ambulance Service and London Fire Brigade) on the consultation and implications of the proposals on their fleets.

3.6.12 On 22 June 2017, all 33 London boroughs were invited to a briefing on ULEZ, in which the development of the proposals was discussed, as well as ULEZ potentially being introduced for heavy vehicles in September 2020 and bringing the zone up to the North and South Circular in 2021.

3.7 Borough engagement group

3.7.1 In their responses to the consultation on the currently confirmed ULEZ scheme held in 2014 and 2015, a number of boroughs requested variations to and expansion of the ULEZ boundary. London Councils requested that the Mayor and TfL work with the London boroughs who wished to see the ULEZ expanded into their areas.

3.7.2 Sir Peter Hendy, then Commissioner of TfL, wrote to the Chair of the London Councils' Transport and Environment Committee on 9 May 2015 committing TfL to work with London local authorities on undertaking feasibility work to understand how an expanded ULEZ after 2020 could be delivered.

3.7.3 Following this, we organised an engagement event on 30 July 2015, attended by officers representing TfL, GLA, London Councils and 23 boroughs (all boroughs were invited). As a result of this meeting, it was agreed to set up an engagement group with a smaller number of boroughs to ensure close working and assist in the development of options as the work progressed.

3.7.4 The group comprises 12 representatives, a mixture of transport and air quality officers, spread across sub-regional transport forums and air quality cluster groups. Boroughs are responsible for disseminating information to colleagues via these forums.

3.8 Letters/mailings sent

3.8.1 In addition to the stakeholder engagement outlined above, customised letters were sent to residents of the Congestion Charging zone.

3.9 The consultation portal

3.9.1 Our online consultation portal (www.tfl.gov.uk/airquality-consultation) hosted all the relevant information relating to the consultation. This included summary information on the proposals for the early introduction of ULEZ in central London, PM standard and changes to residents and disabled tax class sunset periods. This included supporting maps, diagrams and charts. The portal also included a link to the following documents which provided more detailed information on the proposals:

- Consultation and information document
- Integrated Impact Assessment
- Variation Order for the proposed ULEZ changes

3.9.2 During the consultation period, there were 63,191 unique visitors to the air quality consultation page.

3.9.3 Respondents were asked to complete and submit an online questionnaire to provide their feedback about the proposals. It included a number of open and closed questions providing the opportunity for respondents to indicate their views about each of the proposals and ideas as well as give additional comments and feedback.

4. Public, community and business responses to the consultation

4.1 Introduction

4.1.1 This section of the report provides a summary of the information collected from the responses received from the general public (not stakeholders) through the online consultation questionnaire. In general, the data presented here is from questions nine to 34, although information about individual email addresses, business names and the consultation process is not presented. In each table, the total of the percentages is 100 per cent prior to rounding.

4.1.2 In total, there were 18,126 responses to the consultation from the public and businesses. We offered a number of ways for respondents to comment on the consultation:

- Online – through the consultation portal
- Email – comments emailed directly to TfL
- Post – by letter or return of a hard copy questionnaire

Table 2: Consultation responses by response method

Response method	Number of responses	Percentage
Online (consultation portal)	17,918	98.8%
Email	174	0.9%
Post	34	0.2%
Total	**18,126**	**100%**

4.2 Respondent type

4.2.1 Public, business, taxi and PHV respondents were asked to indicate in what capacity they were responding to the consultation; that is whether they were representing themselves or another business or organisation. Respondents were free to identify themselves as any of these categories. It should be noted that where 'government organisation', 'community or voluntary organisation' 'businesses' or 'campaign group' was selected, we undertook a check to see if any of these were stakeholders and these respondents were then transferred to the stakeholder analysis in this report.

Table 3: Consultation responses by respondent type (question 10)

Respondent type	Number of responses	Percentage
As an individual	16,035	88.5%
As a taxi (black cab) owner/driver	58	0.3%
As a PHV (minicab) owner/driver/operator	170	0.9%
As a representative of a business	845	4.7%
As a representative of a community or voluntary organisation	59	0.3%
As a representative of a government organisation	8	0%
As a representative of a campaign group	23	0.1%
Other	360	2%
Not answered	568	3.1%
Total	**18,126**	**100%**

4.2.2 Respondents were asked to provide a postcode and we have used this to categorise where respondents live.

Table 4: Consultation responses by respondent type (question 19)

Respondent resident zone	Number of responses	Percentage
Within the ULEZ zone	1,344	7%
Rest of Greater London	10,541	58%
Outside Greater London	2,481	14%
No postcode provided	3,760	21%
Total	**18,126**	**100%**

4.3 Information channels

4.3.1 Respondents were also asked how they heard about the consultation.

Table 5: Information channels through which respondents heard about the consultation

Respondent type	Number of responses	Percentage
Received an email from TfL	12,650	69.8%
Received a letter from TfL	402	2.2%
Read about it in the press	1,010	5.6%
Social media	1,160	9.2%
Read about consultation on the TfL website	543	3%
Other	1,054	5.8%
Not answered	807	4.5%
Total	**18,126**	**100%**

4.3.2 'Other' information channels included television, direct emails from stakeholders and through search engines.

4.4 Transport usage

4.4.1 Respondents were asked to indicate which forms of transport they use in central London; they could tick as many of the options as applied.

Table 6: Modes of transport used by respondents (question 15)

Respondent type	Number of responses
Vehicles for private use	9,234
Vehicles for commercial use	1,835
Taxi (black cab)	4,856
PHV (minicab)	3,685
Tube	14,449
Bus	11,708
Walk	13,094
Bike	5,922
Other	1,684

4.4.2 'Other' modes of transport include motorbike, the Docklands Light Railway (DLR) and commuter coach.

4.5 Driver behaviour

4.5.1 Respondents were asked about their driving behaviour. The questionnaire sought information on whether respondents drove within the Congestion Charging zone and if so, how often. The Congestion Charging zone is the area proposed for the ULEZ.

Table 7: Public and business respondents' frequency of driving in the Congestion Charging zone (question 24)

Frequency	Number of responses	Percentage
Every day	714	3.9%
1–2 days a week	1,416	7.8%
3–6 days a week	1,028	5.7%
1–2 days a month	2,249	12.4%
Less than once a month	5,987	33%
Never	6,379	35.2%
Not answered	353	1.9%
Total	**18,126**	**100%**

5. Analysis of public responses

5.1 Introduction

5.1.1 This chapter provides an analysis of the feedback from the public, community and businesses. A quantitative and qualitative analysis of the data received under each proposal is provided. A copy of the questionnaire is at Appendix D.

5.1.2 The proposals and the responses to them are considered in the following order:

- The principle of the ULEZ
- Introducing the ULEZ in central London from April 2019
- Bringing forward the end of the residents' sunset period to April 2022
- Maintaining the end of the sunset period for disabled persons' vehicles at September 2023
- Introducing a PM standard for diesel

Quantitative analysis of closed questions

5.1.3 An analysis of each of the closed questions contained within the questionnaire is provided in this chapter. The number of respondents and the proportion of support and opposition or preferences are set out. These are cross-referenced with key respondent characteristics, such as whether they live or drive in a particular zone, for those that state they do this. The question numbers from the questionnaire are also referenced within the title of each sub-section.

5.1.4 In the explanatory text, the percentage for the proportions supporting the proposal includes those who stated that they 'strongly support' and 'support' each proposal. The percentage for those opposing the schemes likewise includes those who 'strongly oppose' and 'oppose' the proposal. A full breakdown of these categories is provided in the tables and charts.

Qualitative analysis of free text responses (open questions)

5.1.5 The questionnaire contained a free text box to enable respondents to comment or make suggestions regarding any or all of the proposals. All comments and suggestions received were reviewed and coded to identify common themes raised by respondents.

5.1.6 Comments of a similar nature are organised by theme. The qualitative analysis also identifies the percentage of overall public and business comments related to each theme, calculated by using the total number of respondents. A full table of quantification of comments and themes from public and business respondents is provided in Appendix G.

5.1.7 Our response to the main comments and suggestions raised in the open text section of the questionnaire is provided in Chapters 8 and 9 of this report.

5.2 Question 1: Principle of the ULEZ

5.2.1 Table 8 sets out the level of support from the general public for the principle of the ULEZ to improve air quality in London.

Table 8: The principle of the ULEZ

Response	Count	%
Strongly support	10,494	57.9%
Support	2,618	14.4%
Neither support nor oppose	902	5%
Oppose	1,136	6.3%
Strongly oppose	2,727	15%
Don't know	27	0.1%
Not answered	222	1.2%
Total	**18,126**	**100%**

Figure 2: The principle of ULEZ by respondents' area of residence

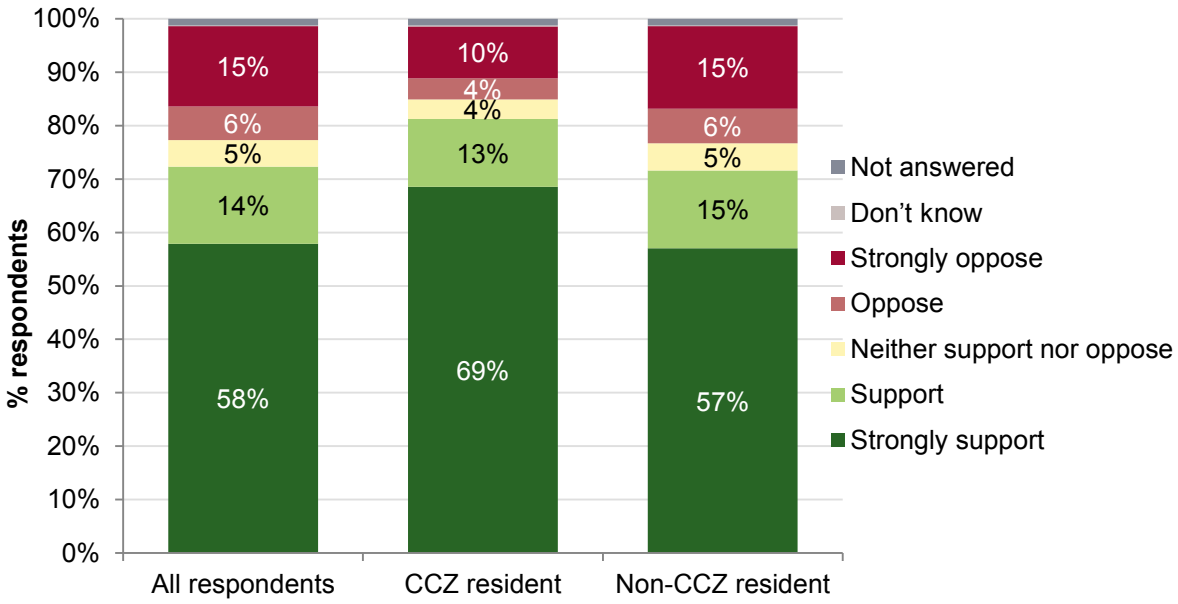
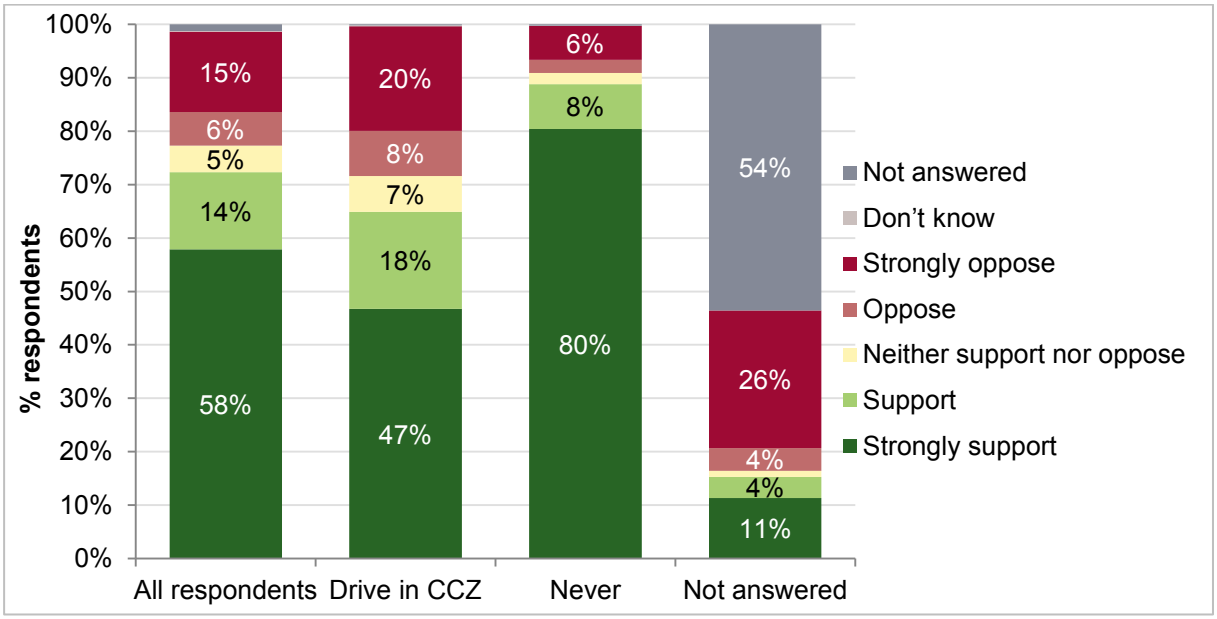


Figure 3: The principle of ULEZ by respondents' use of vehicles within central London



5.3 Question 2: Implementation date of the ULEZ

5.3.1 Table 9 sets out the level of support from the general public for the proposal to introduce the ULEZ on 8 April 2019. The question asked if the respondent agreed with the proposed implementation date.

Table 9: Support for introducing the ULEZ from 8 April 2019

Response	Count	%
Strongly support	9,912	54.7%
Support	1,471	8.1%
Neither support nor oppose	687	3.8%
Oppose	1,196	6.6%
Strongly oppose	4,588	25.3%
Don't know	37	0.2%
Not answered	235	1.3%
Total	**18,126**	**100%**

Figure 4: Support for introducing the ULEZ from 8 April 2019 by respondents' area of residence

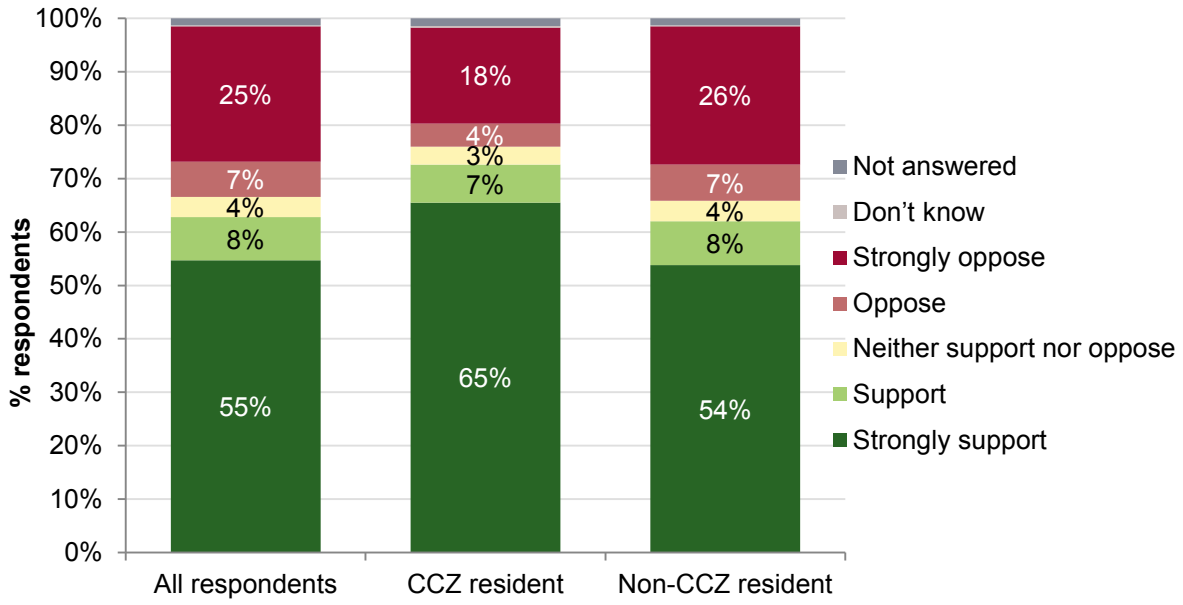
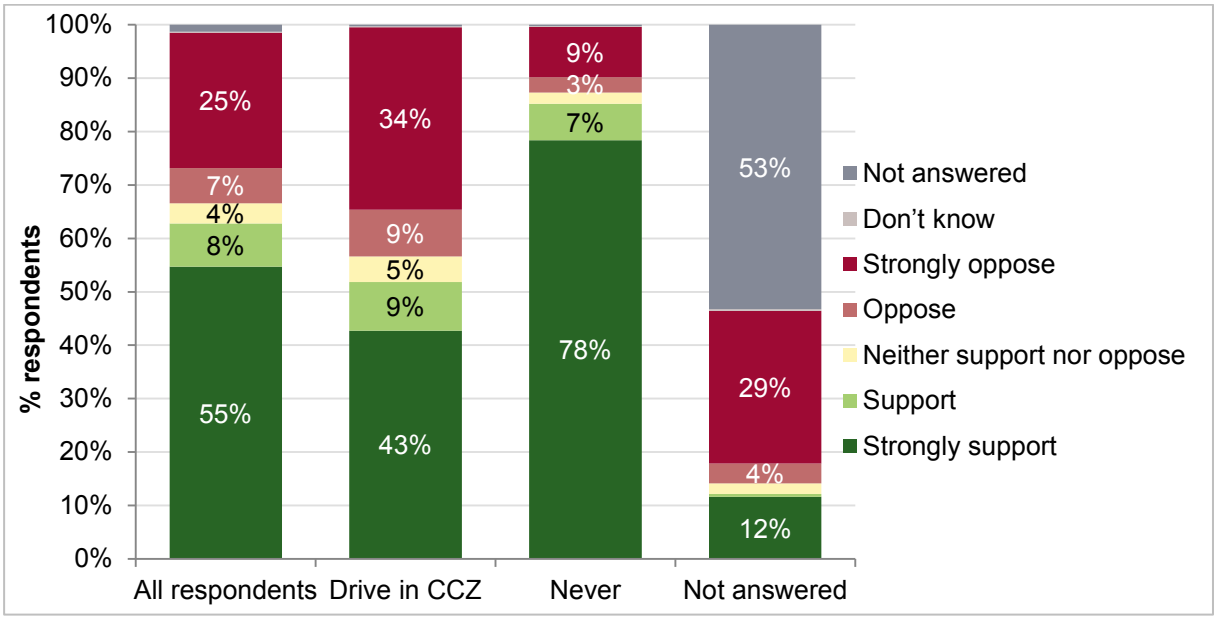


Figure 5: Support for introducing the ULEZ from 8 April 2019 by respondents' use of vehicles within central London (CCZ)



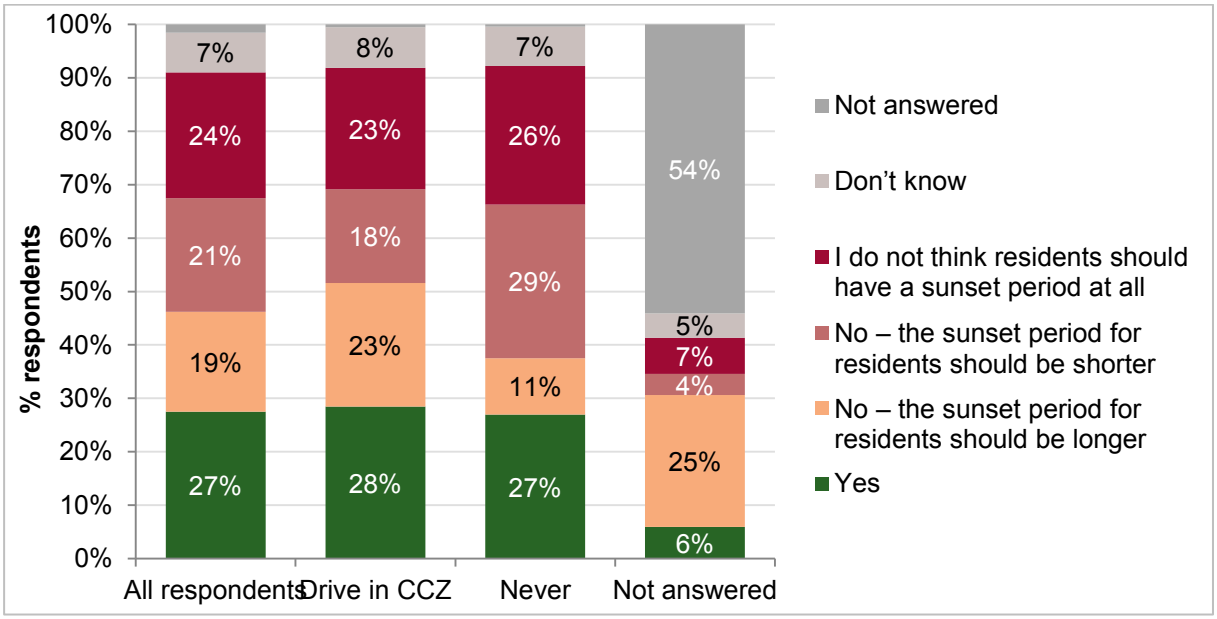
5.4 Question 3: Residents' sunset period

5.4.1 Table 10 sets out the level of support from the general public for the proposal to retain the residents' sunset period, but bring forward its end date to 11 April 2022.

Table 10: Support for the proposed change to residents' sunset period

Response	Count	%
Yes I support the revised proposals for the sunset period	4,980	27.5%
No – sunset period should be longer	3,397	18.7%
No – sunset period should be shorter	3,850	21.2%
There should be no sunset period	4,266	23.5%
Don't know	1,355	7.5%
Not answered	278	1.5%
Total	**18,126**	**100%**

Figure 6: Support for the proposed change to residents' sunset period by respondents' area of residence



5.5 Question 4: Disabled vehicles' sunset period

5.5.1 Table 11 sets out the level of support from the general public for the proposal to maintain the end date of the disabled vehicles' sunset period.

Table 11: Retaining the present end date of the sunset period for disabled tax class vehicles

Response	Count	%
Yes I support the revised proposals for the sunset period	6,704	37.0%
No – sunset period should be longer	3,429	18.9%

No – sunset period should be shorter	3,099	17.1%
I do not think disabled tax class vehicles should have a sunset period	2,776	15.3%
Don't know	1,831	10.1%
Not answered	287	1.6%
Total	**18,126**	**100%**

5.6 Question 5: PM standard for diesel vehicles

5.6.1 Table 12 sets out the level of support from the general public for the proposed new PM standard for diesel vehicles in addition to the NO_x standard.

Table 12: PM standard for diesel vehicles

Response	Count	%
Strongly support	10,079	55.6%
Support	2,304	12.7%
Neither support nor oppose	1,121	6.2%
Oppose	1,162	6.4%
Strongly oppose	2,708	14.9%
Don't know	533	2.9%
Not answered	219	1.2%
Total	**18,126**	**100%**

5.7 Theme A: Principle of the ULEZ

5.7.1 In total, 3,296 comments were made on the principle of introducing the ULEZ. The results are shown in Table 13 below.

5.7.2 The most common comments referred to supporting the introduction of the ULEZ (six per cent of respondents) and supporting measures to tackle air quality (five per cent of respondents). Three per cent of respondents opposed the introduction of an ULEZ and one per cent of respondents raised concerns that ULEZ will not be effective in improving air quality.

Table 13: Comments on principle of ULEZ

Comment	Number of comments	Percentage of all respondents
Support the introduction of the ULEZ	1,012	6%
Support measures to improve air quality in London	838	5%
Oppose the introduction of an ULEZ	622	3%
Support tougher measures to improve air quality than those proposed	359	2%
Concern that ULEZ charging scheme will not be effective in improving air quality	200	1%

5.8 Theme B: Timescales

5.8.1 There were 1,610 comments made about timescales. The results are shown in Table 14.

5.8.2 Four per cent of respondents wanted to see ULEZ implemented earlier than 2019 in central London, three per cent opposed the proposed implementation date on the basis that more time to enable compliance is required, and one per cent supported the 8 April 2019 implementation date.

Table 14: Comment on timescales

Comment	Number of comments	Percentage of all respondents
Implement ULEZ sooner than 2019	779	4%
Oppose April 2019 implementation date as need longer transition time for compliance	474	3%
Support implementation date of 2019	170	1%

5.9 Theme C: Impact of the proposals

5.9.1 In total, 1,792 comments were made on the impact of the proposals. The results are shown in Table 15.

5.9.2 The most common comments relate to concerns about the disproportionate impact on poorer people (three per cent of respondents). Two per cent of respondents raised concerns about the impact on small businesses, one per cent commented on the negative impact to businesses generally and one per cent on the disproportionate impact on private vehicles.

Table 15: Comments on impact of proposals

Comment	Number of comments	Percentage of all respondents
Concern regarding disproportionate impact on poorer people	499	3%
Concern regarding impact on small businesses	283	2%
Concern regarding impact on businesses (general)	151	1%
Concern regarding disproportionate impact on private cars	122	1%

5.10 Theme D: Costs

5.10.1 There were 1,401 comments made about costs. The results are shown in Table 16.

5.10.2 Five per cent of respondents raised concerns regarding ULEZ being a tax/funding generator for TfL. One per cent of respondents raised concerns about the high cost of replacing vehicles and one per cent raised concerns about the increased cost of living the scheme would place on individuals.

Table 16: Comments on costs

Comment	Number of comments	Percentage of all respondents
Concern that ULEZ is a tax/revenue raising scheme for TfL	867	5%
Concern about the high costs of frequently replacing vehicles	196	1%
Concerns about the increased cost of living	180	1%

5.11 Theme E: Boundary

5.11.1 There were 868 comments made about the ULEZ boundary. The results are shown in Table 17.

5.11.2 Two per cent of respondents suggested that ULEZ should be widened Londonwide. One per cent of respondents supported proposals to extend ULEZ to the North and South Circular Roads and another one per cent of respondents raised concerns about increased traffic and pollution on the boundary.

Table 17: Comments on boundary

Comment	Number of comments	Percentage of all respondents
ULEZ should be Londonwide	290	2%
Support expanding ULEZ to North and South Circular Roads	135	1%
Concern about increased traffic and pollution on boundary	105	1%

5.12 Theme F: Charging levels

5.12.1 There were 398 comments made about charging levels, however, there were no specific themes that were mentioned frequently enough for them to be grouped.

5.13 Theme G: Financial assistance

5.13.1 There were 958 comments made about financial assistance. The results are shown in Table 18.

5.13.2 Two per cent of respondents supported a car scrappage scheme and another one per cent of respondents suggested providing financial support to switch to electric vehicles.

Table 18: Comments on financial assistance

Comment	Number of comments	Percentage of all respondents
Support car scrappage scheme	437	2%
Provide financial support to shift to electric vehicles (subsidised vehicles, free charging points, etc)	257	1%

5.14 Theme H: Emissions standards

5.14.1 There were 1,175 comments made about emissions standards. The largest number of these comments (1,341 comments, which is seven per cent of all respondents) raised concerns about the previous promotion of diesel vehicles by central government and that these same vehicles are now being penalised.

5.15 Theme I: Sunset periods

5.15.1 There were 323 comments made about sunset periods, however, there were no specific themes that were mentioned frequently enough for them to be grouped.

5.16 Theme J: Discounts and exemptions

5.16.1 There were 1,816 comments made on discounts and exemptions. The results are shown in Table 19 below. Three per cent of respondents suggested an exemption for motorcycles and two per cent opposed the exemption for taxis.

Table 19: Comments on discounts and exemptions

Comment	Number of comments	Percentage of all respondents
Suggested an exemption for motorcycles	461	3%
Oppose exemption for taxis	420	2%
Oppose exemption for buses	134	1%

5.17 Theme K: Banning vehicles

5.17.1 There were 805 comments made about banning vehicles. The results are shown in Table 20. One per cent of respondents suggested banning non-compliant vehicles rather than charging and another one per cent of respondents suggested banning diesel vehicles.

Table 20: Comments on banning vehicles

Comment	Number of comments	Percentage of all respondents
Ban non-compliant vehicles rather than charge	176	1%
Ban diesel vehicles	168	1%

5.18 Theme L: Suggested supporting policies

5.18.1 There were 3,156 comments suggesting supporting policies. The results are shown in Table 21. One per cent of respondents respectively raised a number of comments, the most common being suggestions to improve provision for cyclists, public transport, and electric vehicles and banning engine idling.

Table 21: Suggested supporting policies

Comment	Number of comments	Percentage of all respondents
Improve provision for cyclists, eg more cycle lanes, cycle parking, extension of Santander Cycles scheme	259	1%
Improve public transport	252	1%
Ban engine idling	229	1%
Improve provision for electric vehicles, eg more charging infrastructure	227	1%
Penalise manufacturers of polluting vehicles, not motorists	188	1%
Address pollution from non-transport sources, eg diesel generators, home energy efficiency	152	1%
Improve pedestrian environment, eg pedestrianisation, wider pavements	162	1%
Encourage motorcycle use	131	1%

5.19 Theme N: Alternative policy suggestions

5.19.1 There were 844 comments made about alternative policy suggestions. The results are shown in Table 22. Two per cent of respondents suggested improving traffic flow in a variety of ways, one per cent of respondents opposed investment in cycle facilities citing issues around congestion and pollution.

Table 22: Suggested alternative policies

Comment	Number of comments	Percentage of all respondents
Improve traffic flow, eg increase road space, reduce roadworks, reduce bus lanes, relocate cycle lanes, synchronise traffic lights	395	2%
Oppose investment in cycle lanes as they cause congestion and worsen pollution	240	1%

5.20 Theme O: Taxis and PHVs

5.20.1 There were 483 comments made about taxis and PHVs, however, there were no specific themes that were mentioned frequently enough for them to be grouped.

5.21 Theme P: Consultation

5.21.1 There were 247 comments made about the consultation itself. One per cent of respondents (135 comments) made general comments criticising the consultation.

6. Campaign responses and petitions

6.1 Introduction

6.1.1 Throughout the consultation, we received a number of emails from members of the public as part of a campaign led by Greenpeace. We also received an online petition through Change.org and 38 Degrees.

6.1.2 Respondents were provided with a template response by the campaign groups which could be amended. A summary of these campaigns is provided in this chapter and a fuller analysis is set out in Appendix H.

6.2 Greenpeace campaign

6.2.1 We received 10,837 responses as part of this campaign; 2,121 had been edited to provide additional comments. The template text for the Healthy Air Campaign is shown in Figure 7.

Figure 7: Template text for the Greenpeace email campaign

Dear Mayor of London Sadiq Khan

Air pollution is a huge problem for London. I have several points I'd like to raise in your 'London's Air Quality' consultation.

I strongly support calls for the Ultra Low Emission Zone (ULEZ) to improve air quality in London. It should be introduced by April 2019 and extend to the North to South Circular.

Cutting pollution including particulate matter from diesel vehicles is essential so they should be regulated under the ULEZ.

Car manufacturers continue to break emissions standards tests and have lobbied to weaken them. Diesel cars will never be a clean or safe option. London's air pollution crisis will continue whilst they remain on our roads. That is why I support Greenpeace's recommendation that Euro 6 diesel cars bought from 2018 onwards should be included in the North to South Circular ULEZ, alongside older diesel vehicles. If you publicly announce this in 2018, drivers buying new vehicles would have advance warning. Will you please consult on this recommendation?

Your plan should help everyone make the transition. The central London ULEZ should not apply to residents till 2022 and disabled tax class vehicles till 2023.

I want London's clean air plan to help both the public and the car industry end the pollution fuelled health crisis.

Sincerely

6.2.2 We analysed the additional 2,121 comments received as part of this campaign. A summary is provided in Table 23 below.

Table 23: Additional comments received through the Greenpeace campaign

Comment	Number of comments	Percentage of campaign respondents
Support introduction of a ULEZ	2,021	19%
Support expanding ULEZ to North and South Circular Roads	1,993	18%
Support implementation date of April 2019	1,993	18%
Should be subject to ULEZ: Euro 6 diesel vehicles bought after 2018	1,990	18%
Extend ULEZ zone to North/South Circular Roads in April 2019	1,990	18%
Support sunset period for residents of ULEZ zone	1,907	18%
Support sunset period for disabled tax class vehicles	1,906	18%
Improve provision for cyclists, eg more cycle lanes, cycle parking, extension of Santander Cycles scheme	65	1%
Support measures to improve air quality in London	57	1%
Ban idling	48	<1%

6.3 Change.org petition

6.3.1 Change.org hosted a petition that was created by an individual. This petition attracted 80 signatures https://www.change.org/p/sadiq-khan-stop-the-mayor-of-london The body of the petition text is in Figure 8.

Figure 8: Change.org petition text

The Mayor has decided to charge vehicles entering the North & South circular road a "toxicity" charge in addition to the normal congestion charge. This will affect the poorest people most who cannot afford to buy a new

car, the retired, single mothers, workers on low paid jobs etc.

The possible scrapage scheme will only apply to buying a new car.

This is purely a money making exercise to bring the mayor in a fantastic amount of money that will make the congestion charge look peanuts

6.4 38 Degrees petition

6.4.1 38 Degrees hosted a petition that was created by an individual. This petition attracted 1,196 signatures. https://you.38degrees.org.uk/petitions/extend-the-ultra-low-emission-zone-to-the-whole-of-london The body of the petition text is in Figure 9.

Figure 9: 38 Degrees petition text

'We call on the Mayor of London and Transport for London to introduce an Ultra Low Emission Zone for all vehicles to cover the whole of Greater London by 2019.'

Why is this important?

We are calling on the Mayor of London to tackle air pollution and save lives by creating an Ultra Low Emission Zone ('ULEZ') to cover the whole of Greater London.

An ULEZ is an area in which vehicles must meet exhaust emission standards or pay a daily travel charge. The highest charges will be paid by the most polluting vehicles. The Mayor is proposing to create an ULEZ for all vehicles in central London in 2019. He is consulting on whether to extend it to cover the area inside the North and Circular Road and also to create an ULEZ for the whole of London but only for heavy vehicles. We are asking him to go further.

Air pollution is now a major health risk. We need powerful measures to tackle it. An ULEZ which applies only to heavy vehicles will not be enough to protect people from pollution in outer London, especially where people live and work next to the North or South Circular. Creating an ULEZ for all vehicles to cover the whole of London would significantly reduce pollution in outer London and would better improve the air quality in central London than an ULEZ that covers central London alone.

For these reasons we ask you to add your name to this petition.

7. Stakeholder responses

7.1 Introduction

7.1.1 This chapter summarises the feedback provided by stakeholder organisations. It includes an analysis of both quantitative and qualitative data.

7.1.2 Responses were received from 116 stakeholder organisations. A full list of these stakeholders is included at Appendix A and a summary of each stakeholder response is provided at Appendix C.

7.1.3 We have categorised these stakeholders into respondent types as shown in Table 24.

Table 24: Stakeholder respondent type

Respondent type	Number of stakeholder responses	Percentage of stakeholder responses
Boroughs	20	17%
Business organisations/Business Improvement Districts (BIDS)	12	10%
Businesses	13	11%
Coach and bus operators	7	6%
Environmental groups	16	14%
Freight organisations	2	2%
Government organisation	6	5%
Health organisations/charities	4	3%
Motoring groups	3	3%
Other	4	3%
Political representatives	6	5%
Taxi and private hire organisations	5	4%
Transport campaign groups	12	10%
Residents/community groups	6	5%
Total	**116**	**100%**

7.2 Quantitative analysis

7.2.1 Stakeholders submitted their comments via the consultation portal and by email. As some stakeholders submitted their feedback by email rather than

via the online questionnaire we do not have a complete data set for all the closed questions contained within the questionnaire.

7.2.2 A quantified analysis of the degree of support and opposition to the proposals based on responses to the closed questions and an interpretation of the comments made is provided in Table 25 to Table 29

Table 25: Stakeholder support and opposition to the principle of ULEZ

Response	Stakeholders
Supported the overall principle of ULEZ (102)	Age UK, Air Quality Brentford, Autogas, Baker Street Quarter Partnership, Balfour Beatty, Better Bankside, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, British Lung Foundation, Calor Gas, Campaign for Better Transport, Campaign For Better Transport (London), Caroline Russell AM, CEMEX, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Climate Change Centre Reading, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Enterprise Rent-A-Car, Environmental Services Association, Environmental Industries Commission, Environmental Protection UK, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, Federation of British Historic Vehicle Clubs, Federation of Small Businesses, FirstGroup, Fitzrovia Neighbourhood Association, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Lambeth for a Cool Planet, Lambeth Green Party, Licensed Private Hire Car Association, Licensed Taxi Drivers' Association, Living Streets, London Assembly Environment Committee, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Harrow, London Borough of Hounslow, London Borough of Islington, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames shared service, London Borough of Tower Hamlets, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Cycling Campaign, London Fire Brigade, London First, London Forum of Civic and Amenity Societies, London Sustainability Exchange, London Tourist Coach Operators' Association, Medact, Metropolitan Police Service,

	Mineral Products Association, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, Royal Mail, St Marylebone Society, Sustrans, The Entertainment Agents' Association, Routemaster Association, Tower Hamlets Wheelers, Toyota, Travis Perkins, Uber, UK Power Networks, Unite, UPS, Veolia, Victoria BID, Westminster BIDS and Westminster City Council.
Opposes the principle of ULEZ (3)	Alliance of British Drivers, GMB Pro Drivers Union and Wandsworth Community Transport.
Neutral response or no comment provided on ULEZ principle (11)	Association of Vehicle Recovery Operators, Confederation of British Industry London, Green Flag, Harrow Community Transport, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, London Ambulance Service, Motorcycle Action Group, National Association of Wedding Car Professionals, Road Haulage Association, The Original London Sightseeing Tour.

Table 26: Stakeholder support and opposition to bringing the ULEZ forward in central London to 2019

Response	Stakeholders
Supported bringing forward the ULEZ to 2019 (59)	Age UK, Air Quality Brentford, Autogas, Baker Street Quarter Partnership, Better Streets for Enfield, British Heart Foundation, Calor Gas, Campaign for Better Transport, Campaign for Better Transport (London), CEMEX, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, Climate Change Centre Reading, Cross River Partnership, Enterprise Rent-A-Car, Environmental Industries Commission, Environmental Protection UK, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, Fitzrovia Neighbourhood Association, Hackney and Tower Hamlets Friends of the Earth, Kew Residents Association, Lambeth for a Cool Planet, Lambeth Green Party, Licensed Taxi Drivers' Association, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Camden, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Harrow, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Cycling

	Campaign, London Fire Brigade, London Sustainability Exchange, Metropolitan Police Service, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, St Marylebone Society, Routemaster Association, Tower Hamlets Wheelers, Unite, UPS, Victoria BID and Westminster BIDS.
Supported bringing forward the ULEZ, but with stronger action than the proposals (18)	Better Bankside, Bloomsbury Association, British Lung Foundation, Caroline Russell AM, ClientEarth, Ealing Friends of the Earth, Enfield Cycling Campaign, Friends of the Earth, Greenpeace, Living Streets, London Assembly Environment Committee, London Borough of Croydon, London Borough of Hackney, London Borough of Hounslow, London Borough of Islington, London Forum of Civic and Amenity Societies, Medact and Sustrans.
Opposed bringing forward the ULEZ to 2019 (26)	Alliance of British Drivers, Association of Vehicle Recovery Operators, Balfour Beatty, Big Bus Tours, Brewery Logistics Group, Confederation of British Industry London, Environmental Services Association, Federation of Small Businesses, Freight Transport Association, GMB Pro Drivers Union, Harrow Community Transport, John Lewis Partnership, Licensed Private Hire Car Association, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London First, RAC Foundation, Road Haulage Association, Royal Mail, The Entertainment Agents' Association, The Original London Sightseeing Tour, Travis Perkins, Uber, UK Power Networks, Veolia, Wandsworth Community Transport.
Neutral or no comment provided (13)	Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia West Neighbourhood Forum, Green Flag, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, London Ambulance Service, London Tourist Coach Operators' Association, Mineral Products Association, Motorcycle Action Group, National Association of Wedding Car Professionals, Toyota.

Table 27: Stakeholder support and opposition to the residents' sunset period change

Response	Stakeholders
Supported bringing forward the residents' sunset (26)	Age UK, Air Quality Brentford, Baker Street Quarter Partnership, British Lung Foundation, Calor Gas, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Federation of British Historic Vehicle Clubs, Greenpeace, Kew Residents Association, Licensed Taxi Drivers' Association, London Borough of Camden, London Borough of Haringey, London Borough of Merton, London

	Borough of Newham, London Borough of Tower Hamlets, London Borough of Waltham Forest, Medact, Metropolitan Police Service, Motorcycle Action Group, RAC Foundation, Royal Borough of Greenwich, Routemaster Association, Unite and Victoria BID.
Supported an even shorter sunset or no sunset period (33)	Alliance of British Drivers, Better Streets for Enfield, Bloomsbury Association, Brewery Logistics Group, Campaign for Better Transport (London), Caroline Russell AM, Clean Air in London, Clean Air Merton, Climate Change Centre Reading, Cross River Partnership, Enfield Cycling Campaign, Environmental Protection UK, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, FirstGroup, Fitzrovia Neighbourhood Association, GMB Pro Drivers Union, Hackney and Tower Hamlets, Friends of the Earth, John Lewis Partnership, Lambeth for a Cool Planet, Lambeth Green Party, Living Streets, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Croydon, London Borough of Islington, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Councils, Muswell Hill Sustainability Group, Our Vauxhall, Road Danger Reduction Forum, St Marylebone Society and Travis Perkins.
Supported a longer sunset period (8)	Big Bus Tours, Campaign for Better Transport, Harrow Community Transport, London Sustainability Exchange, Northbank BID, The Entertainment Agents' Association, Wandsworth Community Transport and Westminster BIDS.
Neutral or no comment (49)	Association of Vehicle Recovery Operators, Autogas, Balfour Beatty, Better Bankside, British Heart Foundation, CEMEX, ClientEarth, Confederation of British Industry London, Ealing Friends of the Earth, Enterprise Rent-A-Car, Environmental Services Association, Environmental Industries Commission, Federation of Small Businesses, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Green Flag, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, Licensed Private Hire Car Association, London Ambulance Service, London Assembly Environment Committee, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Harrow, London Borough of Hounslow, London Borough of Southwark, London Borough of Wandsworth, London Cycling Campaign, London Fire Brigade, London First, London Forum of Civic and Amenity Societies, London Tourist Coach Operators' Association, Mineral Products Association, National Association of Wedding Car Professionals, Road Haulage Association, Royal Borough of Kensington and Chelsea, Royal Mail, Sustrans, The Original London Sightseeing Tour, Tower

	Hamlets Wheelers, Toyota, Uber, UK Power Networks, UPS, Veolia, Westminster City Council.

Table 28: Stakeholder support and opposition to disabled vehicles' sunset period

Response	Stakeholders
Supported maintaining the end date of the disabled vehicles' sunset (47)	Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, British Lung Foundation, Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Cross River Partnership, Enfield Cycling Campaign, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, GMB Pro Drivers Union, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, Harrow Community Transport, Kew Residents Association, Lambeth for a Cool Planet, Licensed Taxi Drivers' Association, London Borough of Brent, London Borough of Camden, London Borough of Croydon, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Islington, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Wandsworth, London Councils, London Tourist Coach Operators' Association, Medact, Metropolitan Police Service, Motorcycle Action Group, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, RAC Foundation, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, Travis Perkins, Unite, Victoria BID, Westminster BIDS.
Supported a shorter sunset period or no sunset period (17)	Alliance of British Drivers, Bloomsbury Association, Brewery Logistics Group, Calor Gas, Campaign for Better Transport (London), Clean Air in London, Clean Air Merton, Climate Change Centre Reading, Environmental Protection UK, Fitzrovia Neighbourhood Association, John Lewis Partnership, Lambeth Green Party, Living Streets, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), Road Danger Reduction Forum, St Marylebone Society, Routemaster Association.
Supported a longer sunset period (7)	Age UK, Big Bus Tours, Federation of British Historic Vehicle Clubs, London Sustainability Exchange, The Entertainment Agents' Association, Wandsworth Community Transport, Westminster City

	Council.
Neutral or no comment (45)	Association of Vehicle Recovery Operators, Autogas, Balfour Beatty, Better Bankside, British Heart Foundation, CEMEX, ClientEarth, Confederation of British Industry London, Ealing Friends of the Earth, Enterprise Rent-A-Car, Environmental Services Association, Environmental Industries Commission, Federation of Small Businesses, FirstGroup, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Green Flag, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, Licensed Private Hire Car Association, London Ambulance Service, London Assembly Environment Committee, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Borough of Hackney, London Borough of Harrow, London Borough of Hounslow, London Borough of Waltham Forest, London Cycling Campaign, London Fire Brigade, London First, London Forum of Civic and Amenity Societies, Mineral Products Association, National Association of Wedding Car Professionals, Road Haulage Association, Royal Mail, Sustrans, The Original London Sightseeing Tour, Tower Hamlets Wheelers, Toyota, Uber, UK Power Networks, UPS, Veolia.

Table 29: Stakeholder support and opposition to PM standard

Response	Stakeholders
Supported changing PM standard (86)	Age UK, Air Quality Brentford, Autogas, Baker Street Quarter Partnership, Balfour Beatty, Better Bankside, Better Streets for Enfield, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, British Lung Foundation, Calor Gas, Campaign for Better Transport, Campaign for Better Transport (London), Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, Environmental Protection UK, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia Neighbourhood Association, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, Harrow Community Transport, John Lewis Partnership, Kew Residents Association, Lambeth for a Cool Planet, Lambeth Green Party, Licensed Private Hire Car Association, Licensed Taxi

	Drivers' Association, Living Streets, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Camden, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Cycling Campaign, London First, London Forum of Civic and Amenity Societies, London Sustainability Exchange, London Tourist Coach Operators' Association, Medact, Metropolitan Police Service, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, St Marylebone Society, Sustrans, The Entertainment Agents' Association, Tower Hamlets Wheelers, Travis Perkins, UK Power Networks, Unite, Veolia, Victoria BID, Wandsworth Community Transport, Westminster BIDS, Westminster City Council.
Opposed changing PM standard (4)	Big Bus Tours, Climate Change Centre Reading, GMB Pro Drivers Union, UPS.
Neutral or no comment (26)	Alliance of British Drivers, Association of Vehicle Recovery Operators, CEMEX, Confederation of British Industry London, Enterprise Rent-A-Car, Environmental Services Association, Federation of Small Businesses, Green Flag, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, London Ambulance Service, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Borough of Croydon, London Borough of Harrow, London Borough of Merton, London Fire Brigade, Mineral Products Association, Motorcycle Action Group, National Association of Wedding Car Professionals, Road Haulage Association, Royal Mail, The Original London Sightseeing Tour, Routemaster Association, Toyota, Uber.

8. ULEZ issues raised

8.1 Introduction

8.1.1 This chapter sets out our analysis of the issues raised in the consultation by stakeholders, the public and businesses that relate to ULEZ and our response. Comments from stakeholders and free text responses from the public and business respondents have been attributed to the most pertinent aspect of the proposal. Within each theme, the 'issues raised' during the consultation that go to make up that theme have been identified and are listed at the start of each section, followed by our response and any recommendations. Where issues are similar, these have been grouped together for a single TfL response.

8.1.2 The themes addressed are as follows:

- ***Theme A: Air quality and the principle of a ULEZ***
- ***Theme B: Timetable***
- ***Theme C: Impacts***
- ***Theme D: Costs***
- ***Theme E: Boundary***
- ***Theme F: Charge level***
- ***Theme G: Financial support and revenue***
- ***Theme H: Vehicle emissions standards***
- ***Theme I: Sunsets***
- ***Theme J: Discounts and exemptions***
- ***Theme K: Vehicle bans***

8.2 Theme A: Principle of a ULEZ

8.2.1 The following 104 stakeholders commented on this theme: Age UK, Air Quality Brentford, Autogas, Baker Street Quarter Partnership, Balfour Beatty, Better Bankside, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, British Lung Foundation, Calor Gas, Campaign for Better Transport (London), Campaign for Better Transport, Caroline Russell AM, CEMEX, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Climate Change Centre Reading, Confederation of British Industry London, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Enterprise Rent-A-Car, Environmental Services Association, Environmental Industries Commission, Environmental Protection UK, European Network of Child Friendly Cities, Federation of British Historic Vehicle Clubs, Federation of Small Businesses, FirstGroup, Fitzrovia Neighbourhood Association, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Green Flag, Greenpeace, Hackney and Tower Hamlets Friends of

the Earth, John Lewis Partnership, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, Kew Residents Association, Lambeth for a Cool Planet, Licensed Private Hire Car Association, Licensed Taxi Drivers' Association, Living Streets, London Ambulance Service, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Harrow, London Borough of Hounslow, London Borough of Islington, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Cycling Campaign, London Fire Brigade, London First, London Forum of Civic and Amenity Societies, London Sustainability Exchange, London Tourist Coach Operators' Association, Medact, Metropolitan Police Service, Motorcycle Action Group, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Road Haulage Association, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, Royal Mail, St Marylebone Society, Sustrans, The Entertainment Agents' Association, Routemaster Association, Tower Hamlets Wheelers, Toyota, Uber, UK Power Networks, Unite, UPS, Veolia, Victoria BID, Westminster BIDS and Westminster City Council.

The issues raised in relation to this theme:

- ***Support the principle of measures to improve air quality***
- ***Support for the ULEZ principle***
- ***Opposition to the ULEZ principle***
- ***Support for tougher measures to improve air quality***
- ***Request for long-term plan for ULEZ to guide drivers transitioning to low emission vehicles***
- ***Other comments on air quality***

Support for measures to improve air quality

8.2.2 The following 92 stakeholders expressed their support for measures to improve air quality: Age UK, Air Quality Brentford, Autogas, Baker Street Quarter Partnership, Balfour Beatty, Better Bankside, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, British Lung Foundation, Calor Gas, Campaign for Better Transport (London), Campaign for Better Transport, Caroline Russell AM, CEMEX, Chartered Institute of Environmental Health, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Climate Change Centre Reading, Confederation of British Industry London, Cross

River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Enterprise Rent-A-Car, Environmental Services Association, Environmental Industries Commission, Environmental Protection UK, European Network of Child Friendly Cities, Federation of British Historic Vehicle Clubs, Federation of Small Businesses, FirstGroup, Fitzrovia Neighbourhood Association, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Green Flag, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kate Osamor MP, Kennington and Walworth Neighbourhood Action Group, Kew Residents Association, Lambeth for a Cool Planet, Licensed Taxi Drivers' Association, Living Streets, London Ambulance Service, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Brent, London Borough of Camden, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Hounslow, London Borough of Islington, London Borough of Merton, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Waltham Forest, London Borough of Wandsworth, London Cycling Campaign, London Fire Brigade, London First, London Forum of Civic and Amenity Societies, London Sustainability Exchange, London Tourist Coach Operators' Association, Medact, Metropolitan Police Service, Muswell Hill Sustainability Group, Northbank BID, Our Vauxhall, Road Danger Reduction Forum, Road Haulage Association, Royal Borough of Greenwich, Royal Mail, St Marylebone Society, Sustrans, Tower Hamlets Wheelers, Toyota, Uber, UK Power Networks, Unite, UPS, Veolia, Victoria BID, Westminster BIDS and Westminster City Council.

8.2.3 Of the public and business responses, 838 comments were made in support of measure to improve air quality in London.

Support for the ULEZ principle

8.2.4 A list of stakeholders who expressed support for the principle of ULEZ is set out in Chapter 7. The consultation included a question about level of support for the principle of ULEZ. Analysis of the public and business response to this question is available in Chapter 5.

Support for tougher measures to improve air quality

8.2.5 The following 16 stakeholders called for tougher measures to improve air quality in general terms: Autogas, British Heart Foundation, Campaign for Better Transport (London), Campaign for Better Transport, Caroline Russell AM, ClientEarth, Environmental Protection UK, Friends of the Earth, London Borough of Hammersmith & Fulham, London Borough of Hounslow, London Borough of Islington, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Cycling Campaign, Medact, Our Vauxhall and the Road Danger Reduction Forum.

8.2.6 Specific suggestions made by stakeholders in terms of ULEZ emissions standards, timetable and boundary etc., as well as alternative policy suggestions, are covered under other themes in this chapter. However, it is worth noting that under this issue the Campaign for Better Transport (London) stated that Paris and Berlin were doing more than London to address air pollution but did not specify what.

8.2.7 ClientEarth, Friends of the Earth, Road Danger Reduction Forum and the British Heart Foundation stated that legal limits should be aligned with the WHO's guidelines. The London Borough of Hammersmith & Fulham highlighted that there is a need to target non-tailpipe particulate matter sources such as tyre, brake, clutch wear and resuspension. Friends of the Earth supported 'a new Clean Air Act to move the UK to WHO standards'. Environmental Protection UK stated that there were no safe levels of PM.

8.2.8 Of the public and business responses, 359 comments were made in support of tougher measures to improve air quality.

TfL response

8.2.9 We note the strong support for measures to tackle air pollution in London. The ULEZ will bring about significant improvements in air quality and the health of Londoners. Further measures to tackle this problem are set out in the draft Mayor's Transport Strategy (MTS)[13] and draft London Environment Strategy (LES)[14].

8.2.10 The Mayor's most urgent objective is to do all he can, alongside the Government and others, to meet legal limits for concentrations of NO_2 as quickly as possible. However, as set out in the draft LES, he recognises that cleaning up London's air is about more than just meeting legal compliance. It is about making London a leading global city and an attractive place to live, visit and do business as well as bringing about additional health benefit by further reducing $PM_{2.5}$. The draft LES includes a policy stating that the Mayor will establish new targets for $PM_{2.5}$ and other pollutants where needed. The Mayor will take the necessary steps to meet these targets as soon as possible, working with government and other partners.

8.2.11 The Mayor agrees that a new Clean Air Act is required and has been calling on the Government for this. In his view, it is required to put in place the strongest possible legal protections to ensure the existing legal limits are

[13] https://www.london.gov.uk/what-we-do/transport/our-vision-transport/draft-mayors-transport-strategy-2017

[14] https://www.london.gov.uk/what-we-do/environment/draft-london-environment-strategy-have-your-say

retained and not undone by the UK's decision to exit the European Union as well granting additional powers for cities to tackle urban air pollution.

Request for long-term plan beyond ULEZ to improve air quality and reduce harmful emissions.

8.2.12 The following 10 stakeholders requested a long-term plan to tackle harmful emissions in London: CEMEX, ClientEarth, Climate Change Centre Reading, Confederation of British Industry London, John Lewis Partnership, London Assembly Environment Committee, London Borough of Hackney, London Councils, London First and Tower Hamlets Wheelers.

TfL response

8.2.13 The Mayor's long-term plan for improving air quality and reducing harmful emissions is set out in the draft MTS and LES. These include policies and proposals to help achieve legal limits for NO_2 as quickly as possible, further reduce PM, and put London on a path so that its entire transport system is zero emission by 2050.

Other comments on air quality

8.2.14 The Motorcycle Action Group requested that there should be a lifecycle analysis of the emissions from electric and hybrid vehicles and questioned the evidence of the health impact of air pollution.

TfL response

8.2.15 As highlighted by the Consultation and information document, the publicly available evidence on the health impacts of high concentrations of NO_2 and PM in ambient air is compelling and clearly demonstrates the need to take urgent action to improve air quality in London. Furthermore, London is currently in breach of legal limits for NO_2 and there is a legal requirement to meet these limits as soon as possible.

8.2.16 We carried out a lifecycle analysis of the carbon impact of various fuel types comparing petrol and diesel vehicles with hybrid, electric and other alternative fuels and means of powering vehicles. Even with the current usage of fossil fuels to generate electricity in the UK there are significant CO_2 and NO_x savings for electric and hybrid vehicles across the whole lifecycle of the vehicle and this will further improve as the proportion of renewable fuels in the UK grid increases.

8.3 Theme B: Timetable

8.3.1 The following 70 stakeholders commented on this theme: Age UK, Air Quality Brentford, Association of Vehicle Recovery Operators, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Lung Foundation, Calor Gas, Campaign for Better Transport, Caroline Russell AM, CEMEX, Chartered

Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, ClientEarth, Climate Change Centre Reading, Confederation of British Industry London, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, Federation of Small Businesses, Fitzrovia Neighbourhood Association, Freight Transport Association, Friends of the Earth, GMB Pro Drivers Union, Green Flag, Hackney and Tower Hamlets Friends of the Earth, Harrow Community Transport, John Lewis Partnership, Licensed Private Hire Car Association, Licensed Taxi Drivers' Association, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Harrow, London Borough of Islington, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Tower Hamlets, London Borough of Wandsworth, London Councils, London Cycling Campaign, London First, London Sustainability Exchange, London Tourist Coach Operators' Association, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Road Haulage Association, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, Royal Mail, St Marylebone Society, Sustrans, The Original London Sightseeing Tour, Routemaster Association, Tower Hamlets Wheelers, UK Power Networks, Unite, UPS, Veolia and Westminster City Council.

Issues raised in relation to this theme:

- ***Implement ULEZ sooner than April 2019***
- ***Longer transition time to compliance is needed***
- ***Support 2019 implementation date***
- ***Timescale does not leave enough time for retrofit***
- ***Other comment on timescale***

Implement ULEZ sooner than April 2019

8.3.2 The following seven stakeholders stated that ULEZ should be introduced sooner than April 2019: Air Quality Brentford, Bloomsbury Association, Caroline Russell AM, ClientEarth, Friends of the Earth, London Assembly Environment Committee and London Sustainability Exchange.

8.3.3 Among public and business respondents, there were 779 comments that ULEZ should be introduced sooner than April 2019.

TfL response

8.3.4 The April 2019 start date was chosen to provide a balance between the need to take urgent action on air pollution, to provide adequate notice to those affected by the charge, and to ensure sufficient time to build the necessary systems to operate the ULEZ. There would be insufficient time

for TfL to put in place the necessary systems to operate ULEZ any sooner than April 2019.

8.3.5 The benefits, such as a reduction in harmful emissions and the associated health impacts, will arise earlier than the April 2019 implementation date, as fleets begin to upgrade their vehicles in time for the ULEZ starting, including the TfL bus fleet in central London.

8.3.6 Earlier action is being taken on air pollution through the T-Charge (also known as the Emissions Surcharge) which will apply a £10 charge to pre-Euro 4/IV vehicles during Congestion Charging hours from October 2017.

Longer transition time to compliance is needed

8.3.7 The following 17 stakeholders commented that more time was needed for people to transition to ULEZ-compliant vehicles: Big Bus Tours, Brewery Logistics Group, City of London Corporation, Environmental Industries Commission, Freight Transport Association, Harrow Community Transport, London Borough of Southwark, London Councils, RAC Foundation, Road Haulage Association, Royal Mail, The Original London Sightseeing Tour, Veolia and Westminster City Council.

8.3.8 The following seven stakeholders stated that the change in the start date of ULEZ will adversely affect vehicles on lease: Federation of Small Businesses, Freight Transport Association, Green Flag, London First, London Tourist Coach Operators' Association, RAC Foundation and UK Power Networks.

TfL response

8.3.9 The April 2019 start date was chosen to provide a balance between the need to take urgent action on air pollution, to provide adequate notice to those affected by the charge, and to ensure sufficient time to build the necessary systems to operate the ULEZ.

8.3.10 Euro VI heavy duty vehicles have been available for purchase since September 2014, providing a sufficient market for compliant vehicles. Since the close of the consultation the Clean Vehicle Retrofit Accreditation scheme has been launched, with a manufacturer already approved to retrofit buses to Euro VI standard. It is anticipated that further retrofit options will be certified shortly, providing operators with a further option for achieving compliance

8.3.11 As identified in the IIA that formed part of the consultation information there will be additional impacts between the period spring 2019 and autumn 2020 associated with the proposed changes to ULEZ. These include minor and moderate beneficial impacts, such as reduction in harmful emissions and associated improvements in human health, and minor adverse impacts due to the costs and inconvenience of having to comply with the scheme 17 months sooner. However, overall the proposed changes to ULEZ is not

anticipated to result in any materially different long-term impacts to those previously reported for a September 2020 start date.

8.3.12 We accept that there is likely to be additional short term costs in achieving compliance sooner. However TfL is satisfied that the health benefits outweigh any additional impacts on operators.

8.3.13 While the previous mayor considered a September 2020 start date to strike the right balance between taking action on air quality and cost of compliance, the current Mayor has a different view about this balance. He believes there is a compelling need to bring forward the health benefits of the ULEZ by implementing the scheme sooner.

Timescale does not leave enough time for retrofit

8.3.14 The following 13 stakeholders stated that the timescale does not leave enough time for vehicles to be retrofitted: Big Bus Tours, Brewery Logistics Group, City of London Corporation, Environmental Industries Commission, Freight Transport Association, Harrow Community Transport, London Borough of Southwark, London Councils, RAC Foundation, Road Haulage Association, Royal Mail, The Original London Sightseeing Tour and Westminster City Council.

TfL response

8.3.15 In responses to government proposals on air pollution, TfL and the GLA have made explicit the need for the Government to provide a retrofit certification scheme.

8.3.16 The Clean Vehicle Retrofit Accreditation Scheme (CVRAS) was launched on 3 August. Our understanding is that there are several manufacturers of retrofit equipment that will be certified shortly, providing operators with opportunity to schedule retrofit from a wide range of suppliers. We will be using retrofit solutions to reduce emissions from our own bus fleet prior to the start of ULEZ.

8.3.17 If there is evidence of a backlog of retrofitting vehicles, in the run-up to the start of ULEZ we will consider options for how to treat vehicles that can demonstrate they have ordered retrofit equipment in good time.

Additional comments on timescale

8.3.18 London Councils requested that the costs and benefits of the April 2019 start date be assessed against the previously proposed September 2019 start date.

8.3.19 The Original London Sightseeing Tour stated that a September 2019 date would be more manageable as seasonal operators could withdraw older vehicles from service after this point.

TfL response

8.3.20 The Stage 2 non-statutory consultation did not propose a specific start date for the ULEZ in central London, other than 2019. No assessment was undertaken of a September 2019 start date.

8.3.21 A full assessment of the impacts of an April 2019 start date against a September 2020 start date was set out in the consultation and information document.

8.3.22 Withdrawal of vehicles from London is not the only option for compliance. There are options for operators of sightseeing buses to replace their vehicles, retrofit their vehicles or pay a daily charge to enter the ULEZ..

8.3.23 On a per vehicle basis Euro V tour buses are amongst the highest NOx emitting vehicles. For this reason it is not considered appropriate for these vehicle types to be treated as a special case with the start of ULEZ emissions standards and charges for tour buses be delayed until September 2019.

8.3.24 There is a requirement for London to reduce air pollution as soon as possible. The April 2019 start date was chosen in preference to a start date later in 2019 as it is the earliest possible time to introduce the ULEZ, factoring in the need to deliver and upgrade the systems required to successfully operate the ULEZ.

8.4 Theme C and D: Costs and impacts

8.4.1 The following 45 stakeholders raised issues in relation to these themes: Alliance of British Drivers, Association of Vehicle Recovery Operators, Baker Street Quarter Partnership, Balfour Beatty, Big Bus Tours, Calor Gas, Caroline Russell AM, CEMEX, Confederation of British Industry London, Cross River Partnership, Environmental Services Association, Federation of Small Businesses, Freight Transport Association, GMB Pro Drivers Union, Green Flag, Harrow Community Transport, John Lewis Partnership, London Ambulance Service, London Assembly Environment Committee – Conservative Group, London Borough of Hackney, London Borough of Haringey, London Borough of Islington, London Borough of Merton, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Wandsworth, London Councils, London First, London Sustainability Exchange, London Tourist Coach Operators' Association, Metropolitan Police Service, Motorcycle Action Group, Our Vauxhall, RAC Foundation, Road Haulage Association, Royal Borough of Greenwich, Royal Mail, The Entertainment Agents' Association, The Original London Sightseeing Tour, Travis Perkins, Uber, UK Power Networks, Veolia, Victoria BID, Wandsworth Community Transport and Westminster City Council.

8.4.2 Among public and business respondents there were 1,792 comments made on the impacts and 1,401 made about costs. Full details are available in Chapter 5.

Issues raised in relation to this theme:

- ***Concern regarding impact on coach companies***
- ***Scheme will disproportionately affect poorer Londoners***
- ***Concern around impact on small businesses***
- ***Concern regarding impact on business in general***
- ***Concern around combined impact of ULEZ and Direct Vision Standard (DVS)***
- ***Concern around costs of implementing ULEZ***
- ***Other comment on costs and impacts***

Concern regarding impact on coach companies

8.4.3 Big Bus Tours, London Borough of Wandsworth, London Tourist Coach Operators' Association and The Original London Sightseeing Tour raised concerns on the potential impact on the coach industry.

TfL response

8.4.4 In response to concerns from the coach industry, TfL worked with the Confederation for Passenger Transport (CPT) to identify potential case studies of small coach operators on the impact of the ULEZ.

8.4.5 An independent consultancy were commissioned to undertake the financial case studies. For the example companies studied they found that given the size of the zone, and the expected availability of a retrofit solution, bringing forward the ULEZ start date should have a manageable impact on cashflow for the companies.

8.4.6 The financial case studies report is provided as an appendix K to this report.

Scheme will disproportionately affect poorer Londoners

8.4.7 Calor Gas, Confederation of British Industry London, GMB Pro Drivers Union, London Borough of Islington, London Borough of Wandsworth, Motorcycle Action Group, RAC Foundation and The Entertainment Agents' Association raised concerns that the ULEZ would disproportionately impact poorer Londoners.

TfL response

8.4.8 The IIA acknowledges there may be a minor differential impact on shift workers. Improvements to public transport, such as the proposals to introduce overnight services on sections of the London Overground from December this year, and the future expansion of the Night Tube to the sub surface lines after the completion of the line modernisation can help mitigate this impact.

8.4.9 There is evidence that lower income Londoners have access to fewer cars per household than those on higher incomes, furthermore they are also less likely to drive into the Congestion Charge zone.

8.4.10 The ULEZ allows petrol vehicles that meet Euro 4 standards to travel into the ULEZ without charge. The Euro 4 standard was introduced in 2005, meaning that a 14-year-old petrol vehicle in 2019 would comply with the ULEZ standards.

8.4.11 Finally, there is mounting evidence that lower income Londoners are disproportionately affected by air pollution. They are the most likely to benefit from reduced concentrations of air pollution as a result of the ULEZ being brought forward.

Concern around impact on small businesses

8.4.12 The following stakeholders raised concerns around the impact on small businesses: CEMEX, Federation of Small Businesses, Freight Transport Association, London Assembly Environment Committee – Conservative Group, London Borough of Haringey, London Borough of Wandsworth, London Councils and Royal Borough of Greenwich.

TfL response

8.4.13 It is acknowledged that small businesses are more likely to be adversely affected than larger businesses. Part of the reason that the charge level for vans was set at £12.50 was to enable occasional trips into the zone at an affordable cost for businesses. Similarly the charge level for heavy vehicles was set at £100 rather than £200 for this purpose.

8.4.14 TfL and the Mayor have repeatedly called for, and will continue to call for, a targeted scrappage scheme that would provide benefits to small businesses[15].

8.4.15 Regardless of this, the April 2019 start date was chosen to provide a balance between the need to take urgent action on air pollution, to provide adequate notice to those affected by the charge, and to ensure sufficient time to build the necessary systems to operate the ULEZ.

Concern regarding impact on business in general

[15] https://www.london.gov.uk/press-releases/mayoral/mayor-urges-government-over-diesel-scrappage-fund

8.4.16 The following 23 stakeholders raised concerns around the impacts on businesses in general: Association of Vehicle Recovery Operators, Baker Street Quarter Partnership, Balfour Beatty, Big Bus Tours, Confederation of British Industry London, Cross River Partnership, Environmental Services Association, Federation of Small Businesses, Freight Transport Association, Green Flag, John Lewis Partnership, London Assembly Environment Committee – Conservative Group, London First, Metropolitan Police Service, RAC Foundation, Road Haulage Association, Royal Mail, The Original London Sightseeing Tour, Travis Perkins, Uber, UK Power Networks, Veolia and Westminster City Council.

TfL response

8.4.17 Whilst we acknowledge that there will be additional costs for businesses a balance needs to be struck between the need to reduce vehicle emissions to improve the health of Londoners and the need to ensure the scheme is feasible and affordable. In the opinion of TfL and the Mayor, the proposals strike an appropriate balance, especially when considering the urgent requirement to achieve compliance with legal air pollution limits as quickly as possible.

8.4.18 The IIA which formed part of the consultation material found that the economic impact of bringing forward ULEZ from 2020 to 2019 is likely to have very limited impact to the economy as a whole, as the additional costs of compliance are very small compared to the size of London's economy. Overall the assessment was that the impact will be minor in the short term but overall there would be no material change to the impact previously assessed in the 2014/15 IIA undertaken for the original ULEZ scheme starting in September 2020.

Concern around combined impact of ULEZ and DVS

8.4.19 The following stakeholders raised concerns around the combined impact of Direct Vision Standards and the ULEZ: CEMEX, Freight Transport Association, John Lewis Partnership, London Borough of Hackney, London Borough of Merton, RAC Foundation and Road Haulage Association.

TfL response

8.4.20 The combined impact of Direct Vision Standards and the ULEZ on HGV operators is acknowledged. The second phase of consultation on Direct Vision Standards will commence in autumn this year and will include a full IIA that considers the impacts of both schemes.

8.4.21 Since the end of this consultation, work to assess and grade all Euro VI HGVs in terms of the DVS has been completed. This will enable operators to choose a vehicle that complies with both schemes.

Other comment on costs and impacts

8.4.22 The following stakeholders raised additional comments on costs and impacts not listed above: Alliance of British Drivers, Confederation of British Industry London, Environmental Services Association, Harrow Community Transport, London Borough of Islington, RAC Foundation, Uber, Veolia, Victoria BID, Wandsworth Community Transport and Westminster City Council.

8.4.23 The Alliance of British Drivers stated that there was insufficient information provided on the costs of the scheme.

8.4.24 Confederation of British Industry London and RAC Foundation raised concerns around the impact on specialist vehicle operators.

8.4.25 Environmental Services Association, Veolia and Westminster City Council raised concerns that the ULEZ would negatively impact on refuse collection and waste management.

8.4.26 Harrow Community Transport and Wandsworth Community Transport raised concerns around the impact of the ULEZ on the community transport sector.

8.4.27 London Borough of Islington stated it would like to see a reduction in the impacts on social groups identified in the Integrated Impact Assessment.

8.4.28 Uber raised concerns around the impact on private hire vehicle drivers.

8.4.29 British Lung Foundation stated there should be clear targets on reductions from premature death.

TfL response

8.4.30 Our Business Plan has set aside £875m for investment in environmental programmes, including the retrofit of the bus fleet, implementation of electric vehicle infrastructure and the development and implementation of the ULEZ. While we are still in negotiations with suppliers over the final cost of the scheme it would not be appropriate to publish the full details of the costs at this stage. The monetised health benefits of bringing forward the implementation of the ULEZ have been calculated at around £66m in 2019 in the central estimate and were provided within the consultation materials.

8.4.31 With regards to the impact on PHV drivers, the IIA estimated that the difference between 2019 and 2020 is that an additional 10 per cent of PHVs will not be compliant with the required standards. However, the majority of PHV trips do not enter the ULEZ area and large fleet operators may have some flexibility in moving vehicles around London and the South East. While there will be an impact on individual drivers, the impact on the availability of minicabs in central London would be minor.

8.4.32 With regard to the economic impact on other sectors, it is acknowledged that there will be some cost impacts. However, the ULEZ is anticipated to only affect a small proportion of people and is outweighed by the significant

and crucial benefits the proposals will bring to a large proportion of people in terms of improved air quality, health and wellbeing.

8.4.33 With regard to monitoring the health impacts TfL and the GLA will develop appropriate targets and measurements for the schemes in the run-up to implementation.

8.5 Theme E: Boundary

8.5.1 The following 43 stakeholders raised issues in relation to this theme: Air Quality Brentford, Baker Street Quarter Partnership, Better Bankside, Better Streets for Enfield, British Lung Foundation, Calor Gas, Caroline Russell AM, Clean Air Merton, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, FirstGroup, Freight Transport Association, Friends of the Earth, Greenpeace, Kennington and Walworth Neighbourhood Action Group, Kew Residents Association, Lambeth for a Cool Planet, Lambeth Green Party, Living Streets, London Assembly Environment Committee – Conservative Group, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Borough of Brent, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Haringey, London Borough of Hounslow, London Borough of Merton, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Cycling Campaign, London Sustainability Exchange, Medact, Our Vauxhall, Road Danger Reduction Forum, Royal Borough of Greenwich, St Marylebone Society, Sustrans and Tower Hamlets Wheelers.

8.5.2 Among public and business respondents there were 868 comments made about the ULEZ boundary. Full details of the most common comments are set out in Chapter 5.

Issues raised in relation to this theme:

- ***Comment on expansion of ULEZ***
- ***Concern about impacts of boundary***
- ***Other comment on boundary***

Comment on expansion of ULEZ

8.5.3 The following 34 stakeholders made comments on the expansion of the ULEZ: Air Quality Brentford, Better Bankside, Better Streets for Enfield, British Lung Foundation, Calor Gas, Caroline Russell AM, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, Freight Transport Association, Friends of the Earth, Greenpeace, Kennington and Walworth Neighbourhood Action Group, Kew Residents Association, Lambeth for a Cool Planet, Lambeth Green Party, Living Streets, London Assembly Environment Committee – Conservative Group, London Assembly

Environment Committee – UKIP Group, London Assembly Environment Committee, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Haringey, London Borough of Hounslow, London Borough of Merton, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Cycling Campaign, London Sustainability Exchange, Medact, Road Danger Reduction Forum, St Marylebone Society and Sustrans.

8.5.4 The following stakeholders stated that the ULEZ should be expanded Londonwide for all vehicles: Air Quality Brentford, Better Bankside, Better Streets for Enfield, British Lung Foundation, Caroline Russell AM, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Friends of the Earth, Greenpeace, Kew Residents Association, Lambeth Green Party, London Assembly Environment Committee, London Borough of Camden, London Borough of Hackney, London Cycling Campaign, Road Danger Reduction Forum and Sustrans.

8.5.5 The following stakeholders supported an expansion of ULEZ to the North and South Circulars: Better Bankside, Calor Gas, Environmental Industries Commission, Lambeth for a Cool Planet, London Borough of Camden, London Borough of Haringey, London Borough of Hounslow, London Sustainability Exchange and St Marylebone Society.

8.5.6 The following stakeholders commented on the potential negative impacts of the North and South Circular boundaries: London Borough of Brent, London Borough of Hackney and Royal Borough of Greenwich.

8.5.7 Baker Street Quarter Partnership and London Borough of Brent stated that the ULEZ should be expanded to cover Euston Road.

8.5.8 London Borough of Merton stated that the ULEZ should be expanded to cover all of Merton.

8.5.9 Tower Hamlets Wheelers stated that the ULEZ should be expanded to cover inner London, including Tower Hamlets.

8.5.10 London Assembly Environment Committee – Conservative Group stated its opposition to expanding the ULEZ to the North and South Circulars.

8.5.11 The following stakeholders stated their support for a Londonwide extension for heavy vehicles: London Borough of Merton, London Borough of Croydon, London Assembly Environment Committee, Environmental Industries Commission and the London Borough of Haringey.

8.5.12 The Freight Transport Association stated its opposition to a Londonwide ULEZ.

8.5.13 The London Environment Committee – UKIP Group stated that a ULEZ around Heathrow in 2022 could be considered.

8.5.14 The following stakeholders stated that the 2019 boundary should be larger: Enfield Cycling Campaign, Friends of the Earth, Greenpeace, Kennington

and Walworth Neighbourhood Action Group, Living Streets, London Assembly Environment Committee, London Borough of Hounslow and Medact.

TfL response

8.5.15 No formal proposals for changes to the ULEZ boundary were put forward in the consultation. Later this year we will be consulting on proposals for a future expansion of the ULEZ. Full details of impacts will be provided as part of this.

8.5.16 With regard to comments on expanding the scheme in 2019, a 2019 start date was considered for an expanded ULEZ during the Stage 2 consultation. However, in light of stakeholder feedback and further consideration of the technical issues of delivering an expanded ULEZ, it was proposed that we would consult on an expansion starting in 2021.

8.5.17 This timescale will provide the millions of Londoners, other people and businesses who will be affected with the time they need to take the necessary steps to prepare for these new standards if, subject to consultation, they are confirmed.

8.5.18 In addition, we recognise that Londoners living in the expanded zone need time to make adjustments as there are less extensive alternative transport options in the expanded ULEZ area.

8.5.19 Finally, expanding the ULEZ up to the North and South Circular Roads is technically complex. There are many practical challenges arising from introducing the scheme to cover an area 18 times bigger than the Congestion Charging zone and providing on-street infrastructure and a new back office system affecting millions of people. Following the Stage 2 consultation, we have concluded that it is not feasible to introduce the operational requirements and infrastructure required for this in 2019.

Concern about impacts of boundary

8.5.20 Kennington and Walworth Neighbourhood Action Group, London Borough of Brent, London Borough of Southwark and Our Vauxhall expressed concern about the impact of the central London boundary citing potential increases in traffic, pollution and parking pressures either side of the boundary.

8.5.21 London Borough of Newham stated the importance of understanding the boundary impacts.

TfL response

8.5.22 Although the ULEZ would set standards only for vehicles entering or travelling within the zone, it would be expected to have an impact on the wider fleet (since some vehicles will be upgraded to comply, even for occasional trips) and also to deter some trips, as some drivers will choose

not to make a trip anymore. For this latter group, there will be an impact on areas outside the zone because most of these trips would have involved part of the route being outside the ULEZ.

8.5.23 Trips diverting around the ULEZ could use the Inner Ring Road. Experience with the CC suggests that 'new' trips diverting on to the Inner Ring Road will be counterbalanced by capacity 'freed up' by otherwise deterred trips. Additionally, given that the CC is already a deterrent, the number of 'through trips' during the daytime hours are likely to be small in number. Other traffic deterred from the ULEZ could be reflected in less traffic in inner and outer London, as the legs of these trips in these areas are also not being made.

8.5.24 In this way, it is not expected that the ULEZ will lead to increased traffic around its perimeter. Indeed, and as on page 72 of the Consultation and information document, it will lead to a very small reduction in vehicle kilometres on the Inner Ring Road and inner London, with no change in outer London.

8.5.25 With regard to parking pressure, due to the costs of parking in the area around ULEZ, it is not expected that there would be an increased demand for parking in this area.

Other comment on boundary

8.5.26 FirstGroup requested that if its usual route for Green Line services were not available and buses are diverted into the ULEZ it should not be charged.

8.5.27 The Royal Borough of Kingston upon Thames and London Borough of Sutton shared services requested a change to the LEZ boundary to cover the entirety of the two boroughs.

TfL response

8.5.28 With regard to unexpected diversions, there is already a mechanism in place for the CCZ whereby if vehicles follow the specified diversionary route they are not required to pay the charge (and are not issued with a Penalty Charge Notice), and a similar approach will be taken for ULEZ.

8.5.29 With regards to a potential change to the LEZ boundary, when designing the initial scheme in 2007, we sought a boundary that most widely covered the Greater London Authority area to maximise the benefits of the scheme. In seeking this objective, we were mindful of the need to offer drivers of vehicles which do not meet the LEZ emissions standards the opportunity to safely U-turn or divert away from the zone immediately prior to the point of entry. The LEZ boundary therefore excludes small areas within London to allow for this. An extension of the zone to cover the entirety of the boroughs and still provide a safe diversion route would need to include areas outside of the Greater London area where the Mayor has no jurisdiction.

8.5.30 We have no plans to change the current LEZ boundary. Compliance with the LEZ emissions standards continues to be very high at over 97 per cent. Roads just outside the LEZ boundary will tend to experience similar protection from non-compliant vehicles as the rest of the LEZ area, since vehicle operators approaching London are aware of the LEZ requirements and, if they have business close to and within London, will be compliant.

8.6 Theme F: Charge level

8.6.1 Brewery Logistics Group and RAC Foundation commented on this theme.

8.6.2 Among public and business respondents there were 398 comments received in relation to this theme.

8.6.3 Brewery Logistics Group stated that there should not be a differential between HGVs (vehicle class N2 and N3) of £100 with all other categories only paying £12.50, and that the £100 was too high and £12.50 too low to effect change.

8.6.4 RAC Foundation stated that the charge level for heavy vehicles should be graduated over four years from £20 in year one to £100 in the fourth year of the ULEZ operation.

TfL response

8.6.5 The charge levels were set and agreed in the original consultation on the ULEZ in 2014. We considered the balance between the requirement for a significant charge to be implemented in order to encourage change in practice among heavy vehicle operators and the need to avoid causing economic damage to an extent that would not be justified by the resulting emissions savings. Heavy vehicles generate much greater quantities of NO_x than light vehicles, and the scale in the difference of the proposed charges reflects the scale in the difference of emissions produced by the different vehicle types. In addition to this, evidence on responses to charging shows that heavier vehicles require a higher charge in order to generate a change in practice due to the already high base cost of operating heavy vehicles.

8.6.6 For light duty vehicles, modelling of the appropriate level for the charge took into account evidence gathered about behavioural responses. This evidence was used in conjunction with transport appraisal guidance to test a range of charge levels and weigh-up the impacts on factors including journey times, reductions in economic activity and emissions reductions. It is our opinion that the proposed level achieves a balance of these factors that generates substantial emissions savings without causing a net economic disbenefit.

8.6.7 With regard to the proposal for graduated charge levels, the GLA Act requires the Road User Charging Scheme Order to specify the level of charges. Within the Scheme Order, the charge level for heavy vehicles is fixed at £100. The legislation does not permit the Scheme Order to make provision for the automatic increase in the level of the charge. Any change

to the charge level requires a Variation Order and full statutory consultation. We do not believe it would be cost effective to undertake a series of further consultations each year to increase the charge level.

8.7 Theme G: Financial support and revenue

8.7.1 The following 25 stakeholders raised issues in relation to this theme: Balfour Beatty, Better Bankside, Big Bus Tours, Calor Gas, City of London Corporation, ClientEarth, Environmental Industries Commission, Environmental Protection UK, Federation of Small Businesses, Fitzrovia West Neighbourhood Forum, GMB Pro Drivers Union, Green Flag, Harrow Community Transport, Kate Osamor MP, London Assembly Environment Committee, London Borough of Camden, London Borough of Hackney, London Borough of Hounslow, London Councils, London Cycling Campaign, London Fire Brigade, Muswell Hill Sustainability Group, Tower Hamlets Wheelers, Travis Perkins and Wandsworth Community Transport.

8.7.2 Among public and business respondents there were 958 comments made about this theme. Further details are outlined in Chapter 5.

Issues raised in relation to this theme:

- ***Support diesel scrappage scheme***
- ***Financial support upgrading to compliant vehicles***
- ***Revenue generated by schemes***

Support diesel scrappage scheme

8.7.3 The following 13 stakeholders stated their support for a diesel scrappage scheme: Better Bankside, Calor Gas, ClientEarth, Environmental Industries Commission, Federation of Small Businesses, Fitzrovia West Neighbourhood Forum, GMB Pro Drivers Union, Kate Osamor MP, London Assembly Environment Committee, London Borough of Hounslow, London Councils, London Cycling Campaign and Muswell Hill Sustainability Group.

8.7.4 Fitzrovia West Neighbourhood Forum stated that TfL should fund a scrappage scheme for residents if the Government is unwilling to.

TfL response

8.7.5 We have developed proposals for a national government-funded scrappage scheme to reduce the financial burden of complying with emissions

standards[16]. This would be limited to low income households and small businesses and would include options for alternatives to private car use. We welcome stakeholder support on this. We have repeatedly made clear in our submissions to national government that such a scheme should be implemented in cities implementing a Clean Air Zone (CAZ). As this is a national issue it is our view that this needs to be a nationally-funded solution.

Financial support upgrading to compliant vehicles

8.7.6 The following nine stakeholders commented on this issue: Balfour Beatty, Big Bus Tours, ClientEarth, Environmental Protection UK, Green Flag, Harrow Community Transport, London Fire Brigade, Travis Perkins and Wandsworth Community Transport.

8.7.7 Balfour Beatty, Big Bus Tours, Green Flag and Travis Perkins stated that there should be financial support available for businesses to upgrade their vehicles to comply with the scheme.

8.7.8 ClientEarth and Environmental Protection UK suggested that financial assistance for drivers of disabled tax class vehicles would be preferable to a sunset period.

8.7.9 Harrow Community Transport and Wandsworth Community Transport suggested that financial assistance should be given to community transport associations to upgrade vehicles.

TfL response

8.7.10 TfL and the GLA have made repeated calls for a targeted scrappage scheme that could be used to help low income drivers, small businesses and charities to upgrade their vehicles.

8.7.11 A national retrofit fund could also be deployed to enable operators of large and specialist vehicles to upgrade their vehicles to comply with Euro VI standards.

8.7.12 As this is not a problem unique to London, it would require a nationwide government-led solution. Issues around state aid would need to be considered in the administration of any such assistance scheme.

[16] https://www.london.gov.uk/press-releases/mayoral/mayor-urges-government-over-diesel-scrappage-fund

Revenue generated by schemes

8.7.13 The following four stakeholders commented on this issue: London Borough of Camden, London Borough of Hackney, London Councils and Tower Hamlets Wheelers.

8.7.14 All of the above stated that revenue generated by the ULEZ should be used to fund sustainable transport and measures to improve air quality.

TfL response

8.7.15 While the ULEZ is expected to make a small surplus initially, it is not intended as a scheme to raise revenue and the surplus is expected to decline over time as more vehicles become compliant with the standard and do not have to pay the charge. As with the Congestion Charge scheme, all surplus revenue would be used to deliver the MTS, including sustainable transport.

8.8 Theme H: Vehicle emissions standards

8.8.1 The following 65 stakeholders raised issues in relation to this theme: Age UK, Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, Calor Gas, Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, ClientEarth, Confederation of British Industry London, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, Environmental Protection UK, Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia Neighbourhood Association, Friends of the Earth, GMB Pro Drivers Union, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Licensed Taxi Drivers' Association, London Assembly Environment Committee, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Wandsworth, London Councils, London Cycling Campaign, London Forum of Civic and Amenity Societies, London Sustainability Exchange, London Tourist Coach Operators' Association, Medact, Motorcycle Action Group, Northbank BID, Original London Sightseeing Tour, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Mail, St Marylebone Society, Sustrans, The Entertainment Agents' Association, Tower Hamlets Wheelers, UK Power Networks, Unite, UPS, Victoria BID and Westminster City Council.

8.8.2 Among public and business respondents there were 1,175 comments made on this theme. Question 5 in the questionnaire invited specific views on the PM standard. Full details are available in Chapter 5.

Issues raised in relation to this theme:

- ***Euro 6 diesel***
- ***Standard should be based on real world emissions***
- ***Comment on PM standard***
- ***Other comment on emissions standard***

Euro 6 diesel

8.8.3 The following seven stakeholders commented on the Euro 6 standard for diesel cars: Enfield Cycling Campaign, Friends of the Earth, Greenpeace, London Assembly Environment Committee, London Borough of Islington, London Forum of Civic and Amenity Societies and Medact.

8.8.4 Enfield Cycling Campaign, Friends of the Earth, London Borough of Islington, London Forum of Civic and Amenity Societies and Medact stated that the Mayor should consider including Euro 6 diesel cars in the ULEZ.

8.8.5 Greenpeace stated that diesel cars purchased after a certain date should be included in the ULEZ.

8.8.6 London Assembly Environment Committee stated the Mayor should consider including Euro 6 diesels in the ULEZ at a future date.

TfL response

8.8.7 We have studied available evidence on the performance of Euro 6/VI vehicles and conducted our own testing to assess the 'real-world' performance of this standard in typical London driving conditions[17]. While Euro 6/VI produces higher emissions than specified in the Euro standard, vehicles are nevertheless performing much better than previous Euro standards. We continue to lobby the Government in the UK and Europe to ensure that Euro 6 is implemented in the most effective way to control emissions. There is evidence that the cleanest Euro 6 diesels emit similar NO_x levels to petrol vehicles, although we note there is a wide range of emissions in Euro 6.

[17] http://content.tfl.gov.uk/in-service-emissions-performance-of-euro-6vi-vehicles.pdf

8.8.8 The real-world performance of Euro 6 vehicles is factored into all modelling and results for the ULEZ. The advent of real world driving (RDE) testing in the near future will further reduce NO_x emissions from diesel vehicles.

8.8.9 Nonetheless, all standards will be kept under review to ensure that the ULEZ remains effective in reducing emissions. The MTS and LES clearly set out London's trajectory towards a zero emission future.

8.8.10 With regards to the suggestion put forward by Greenpeace, we do not hold data on the date of purchase for vehicles and so would be unable to enforce a system on the basis suggested by Greenpeace. Furthermore, this would not necessarily target the most polluting diesel vehicles.

Standard should be based on real world emissions

8.8.11 The following five stakeholders suggested that the ULEZ standard should be based on real world emissions testing for diesel vehicles: Better Streets for Enfield, Caroline Russell AM, ClientEarth, Enfield Cycling Campaign and Sustrans.

8.8.12 ClientEarth suggested a national accreditation scheme based on real world driving.

TfL response

8.8.13 The GLA has launched a cleaner vehicle checker to provide independent ratings of vehicles, advising drivers and fleet owners how vehicles perform under real world driving conditions.

8.8.14 However, it is not possible to use this for enforcement purposes, where all vehicles types and models that might drive in London would need to be tested. The ULEZ standards need to be set on a legally recognised and approved engine test cycle, such as those required to achieve the Euro standards.

Comment on PM standard

8.8.15 The following 60 stakeholders commented on the PM standard: Age UK, Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, British Heart Foundation, Calor Gas, Campaign for Better Transport , Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, ClientEarth, Cross River Partnership, Ealing Friends of the Earth, Enfield Cycling Campaign, Environmental Industries Commission, Environmental Protection UK, Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia Neighbourhood Association, GMB Pro Drivers Union, Greenpeace, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Licensed Taxi Drivers' Association, London Assembly Environment Committee, London Borough of Hackney, London Borough of Hammersmith & Fulham, London

Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Tower Hamlets, London Borough of Wandsworth, London Councils, London Cycling Campaign, London Sustainability Exchange, London Tourist Coach Operators' Association, Motorcycle Action Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, St Marylebone Society, Sustrans, The Entertainment Agents' Association, Tower Hamlets Wheelers, UK Power Networks, Unite, UPS, Victoria BID and Westminster City Council.

8.8.16 Stakeholder support and opposition to the PM standard is set out in section 7.2 above. Most stakeholders supporting the PM standard stressed the importance in reducing PM emissions.

8.8.17 Motorcycle Action Group stated that if a PM standard is to be introduced, it should consider tyre and brake wear and that motorcycles should be exempt on this basis.

8.8.18 GMB Pro Drivers Union stated that there was a lack of choice of vehicle in strengthening emission standards to cover particulate matter.

8.8.19 UPS raised concerns that the PM standard would be an additional requirement over and above the Euro 6/VI requirement and requested information on how this would be enforced.

8.8.20 London Borough of Brent stated that there should be a future PM standard for petrol vehicles.

TfL response

8.8.21 While emissions from tyre and brake wear are an increasingly important source of PM, there are no standards set from this emissions source so it is not possible to introduce a requirement based on this. Exemptions for motorcycles are discussed in section 8.10.

8.8.22 Introduction of the PM standard in addition to the NO_x standard does not, in practical terms, place additional requirements or restrictions on choice of vehicles. All Euro 6/VI certified vehicles meet the Euro standard for both NO_x and PM. National certified retrofit standards will be set to ensure that Euro VI for both NO_x and PM is met. The scheme will be enforced using Driver and Vehicle Licensing Agency (DVLA) data. The inclusion of the PM standard will impact on three models of diesel Euro 3 and 4 vehicles. The number of these vehicles registered in London is believed to be less than 500.

8.8.23 A particulate limit for petrol was introduced at Euro 5. Should there be a future strengthening of the ULEZ standard for petrol, it would be likely to include this requirement in addition to NO_x. However, any such plans would be subject to further development and consultation.

Other comment on emissions standard

8.8.24 ClientEarth raised the issue of gasoline direct injection increasing PM emissions from petrol engines and requested a future review of emissions standards.

8.8.25 London Borough of Brent questioned whether Euro standards will continue to apply in the UK once the UK has left the European Union.

8.8.26 Original London Sightseeing Tour requested that Euro V vehicles should be exempted until the original September 2020 deadline.

TfL response

8.8.27 As with the existing Low Emission Zone, all standards will be kept under review to ensure that they are appropriate. It is not possible to speculate at this stage what future engine standards will apply once the UK leaves the EU, but we consider it unlikely that motor manufacturers will create a bespoke UK engine standard. Should this occur however it would be part of our consideration in setting future emissions standards.

8.8.28 There is limited benefit in setting a short term Euro V requirement for heavy vehicles as there are very limited real world NOx reductions at Euro V compared to the preceeding Euro IV standard. Indeed for some vehicle classes Euro V vehicles emit more NOx than Euro IV vehicles. Questions around timescale are discussed further in section 8.3

8.9 Theme I: Residents and disabled persons' sunset period

8.9.1 The following 56 stakeholders raised issues in relation to this theme: Age UK, Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, Calor Gas, Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Cross River Partnership, Enfield Cycling Campaign, Environmental Protection UK, Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia Neighbourhood Association, GMB Pro Drivers Union, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Lambeth for a Cool Planet, Licensed Taxi Drivers' Association, Living Streets, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Wandsworth, London Councils, London Sustainability Exchange, London Tourist Coach Operators' Association, Motorcycle Action Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, St Marylebone

Society, The Entertainment Agents' Association, Unite, Victoria BID, Westminster BIDS and Westminster City Council.

8.9.2 Among public and business respondents there were 323 comments made on this theme. Full details are available in Chapter 5.

8.9.3 Issues around additional sunset periods for other vehicles or groups are discussed in Theme J in section 8.10.

Issues raised in relation to this theme:

- ***Comment on residents' sunset period***
- ***Comment on disabled tax class vehicles' sunset period***

Comment on residents' sunset period

8.9.4 The following 55 stakeholders commented on the residents' sunset period: Age UK, Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, Calor Gas, Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Environmental Health, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, ClientEarth, Cross River Partnership, Enfield Cycling Campaign, Environmental Protection UK, Federation of British Historic Vehicle Clubs, FirstGroup, Fitzrovia Neighbourhood Association, GMB Pro Drivers Union, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Lambeth for a Cool Planet, Licensed Taxi Drivers' Association, Living Streets, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Wandsworth, London Councils, London Sustainability Exchange, Motorcycle Action Group, Northbank BID, Our Vauxhall, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, St Marylebone Society, The Entertainment Agents' Association, Unite, Victoria BID, Westminster BIDS and Westminster City Council.

8.9.5 The breakdown of support and opposition to the proposals to bring forward the sunset period is set forth in section 7.2.

8.9.6 Brewery Logistics Group, Caroline Russell AM, Clean Air in London, Clean Air Merton, ClientEarth, Enfield Cycling Campaign, GMB Pro Drivers Union, John Lewis Partnership, Living Streets, London Borough of Islington and Road Danger Reduction Forum all stated their opposition to any residents' sunset period.

8.9.7 Lambeth for a Cool Planet, London Borough of Hammersmith & Fulham, London Councils, Royal Borough of Kensington and Chelsea and Westminster BIDS all stated that the sunset period should be consistent with the ULEZ expansion to avoid a situation where residents of the CCZ can drive without charge while residents of an expanded zone are charged. Westminster BIDS stated that the implementation of the expanded ULEZ should be delayed until 2023 to ensure there was no overlap, whereas Lambeth for a Cool Planet, Royal Borough of Kensington and Chelsea and London Borough of Hammersmith & Fulham suggested a further reduction in the sunset period for CCZ residents.

8.9.8 City of London Corporation, suggested a sliding scale of ULEZ charges for residents over the three years. London Borough of Hounslow, London Borough of Islington, London Borough of Southwark, London Borough of Wandsworth, and London Councils stated that the sunset period should be on a sliding scale with the Emissions Surcharge discount, which should decrease over time during this period.

8.9.9 Westminster BIDS commented that they would only support a shorter residents' sunset period if a scrappage scheme is in place.

TfL response

8.9.10 The sunset proposal is that registered residents will receive a 100 per cent discount on ULEZ during the sunset period. This has been written into the transitional provisions of the Scheme Order. The GLA Act requires the Road User Charging Scheme Order to specify the level of charges. This has been set at £12.50 for light duty vehicles. The legislation does not permit the Scheme Order to make provision for automatic changes to the level of discounts provided. Introducing a sliding scale of charges for residents would require a Variation Order and statutory consultation for each change. We do not believe it would be cost effective to undertake further annual consultations to introduce and then alter a charge for residents.

8.9.11 With regards to the proposal to increase the T-Charge for residents, there were no proposals to alter the T-Charge within the Stage 3a consultation. Within the Scheme Order, the T-Charge level for registered residents is fixed at £1 from 23 October 2017 until the end of the residents' sunset period for ULEZ. As with the ULEZ the issues around inability to provide an automatic increase in charge levels apply.

8.9.12 With regard to issues of consistency between the central ULEZ sunset period and an expanded ULEZ, we agree that it is important to ensure that there are no adverse consequences of the sunset period for residents of the Congestion Charging Zone. This will be addressed in the Stage 3b consultation on expansion.

Comment on disabled tax class vehicles' sunset

8.9.13 The following 45 stakeholders commented on the disabled tax class vehicles: Age UK, Air Quality Brentford, Baker Street Quarter Partnership, Better Streets for Enfield, Big Bus Tours, Bloomsbury Association, Brewery Logistics Group, Calor Gas, Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Logistics and Transport, City of London Corporation, Clean Air in London, Clean Air Merton, Cross River Partnership, Enfield Cycling Campaign, Environmental Protection UK, Federation of British Historic Vehicle Clubs, Fitzrovia Neighbourhood Association, GMB Pro Drivers Union, Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Kew Residents Association, Licensed Taxi Drivers' Association, Living Streets, London Borough of Camden, London Borough of Haringey, London Borough of Islington, London Borough of Newham, London Borough of Southwark, London Borough of Sutton and Royal Borough of Kingston upon Thames, London Borough of Wandsworth, London Sustainability Exchange, London Tourist Coach Operators' Association, Motorcycle Action Group, Northbank BID, RAC Foundation, Road Danger Reduction Forum, Royal Borough of Greenwich, Royal Borough of Kensington and Chelsea, St Marylebone Society, The Entertainment Agents' Association, Unite, Victoria BID and Westminster City Council.

8.9.14 The breakdown of support and opposition to the proposals around the disabled tax class vehicles is set out in section 7.2 above.

8.9.15 Caroline Russell AM and ClientEarth stated that financial assistance for those with mobility issues would be preferable to offering a sunset period.

TfL response

8.9.16 In response to the previous consultation on the Ultra Low Emission Zone in March 2015, a time-limited exemption for disabled vehicles until September 2023 was proposed to give owners and operators more time to find a compliant option.

8.9.17 It was proposed that the end date of this sunset period should be maintained at September 2023, providing disabled drivers an additional 4.5 years to comply with the standard.

8.9.18 Recent data indicates that 1,400 out of the 2,500 disabled tax class vehicles entering the CCZ on an average day already comply with the ULEZ standards and it is likely that this will increase due to leasing of vehicles.

8.10 Theme J: Discounts and exemptions

8.10.1 The following 37 stakeholders raised issues in relation to this theme: Age UK, Association of Vehicle Recovery Operators, British Lung Foundation, Chartered Institute of Environmental Health, City of London Corporation, Environmental Services Association, Euston Air Quality and Trees Group, Federation of Small Businesses, FirstGroup, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, Green Flag,

Hackney and Tower Hamlets Friends of the Earth, John Lewis Partnership, Licensed Taxi Drivers' Association, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Hammersmith & Fulham, London Borough of Southwark, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Sustainability Exchange, Mineral Products Association, Motorcycle Action Group, National Association of Wedding Car Professionals, RAC Foundation, Road Haulage Association, Royal Borough of Greenwich, Royal Mail, Routemaster Association, Veolia, Victoria BID, Wandsworth Community Transport and Westminster City Council.

8.10.2 Among public and business respondents there were 1,816 comments made on this theme. Full details are set out in Chapter 5.

Issues raised in relation to this theme:

- ***Motorcycles***
- ***Taxis and private hire vehicles***
- ***Historic and showmen's vehicles***
- ***Blue Badge holders***
- ***Support exemption for emergency service vehicles***
- ***Support for other discounts or exemptions or sunset period***
- ***Opposition to other discounts or exemptions***

Motorcycles

8.10.3 London Borough of Camden, London Borough of Hackney, London Borough of Waltham Forest, London Councils and Motorcycle Action Group commented on motorcycles and similar vehicles.

8.10.4 Motorcycle Action Group suggested that motorcycles should be exempt from the ULEZ.

8.10.5 London Borough of Camden, London Borough of Hackney, London Borough of Waltham Forest and London Councils stated they would not support a 100 per cent discount or exemption for motorcycles.

TfL response

8.10.6 No exemption or discount for powered two wheelers was proposed as part of this consultation.

8.10.7 The Stage 2 consultation on the T-Charge proposed and agreed an exemption for powered two wheelers in line with the discounts and exemptions for the Congestion Charge. The T-Charge was agreed in February 2017 and the reasoning behind this was set out in the report to the Mayor on the Stage 2 consultation. There were no proposals regarding the T-Charge as part of the Stage 3a consultation.

8.10.8 The inclusion of motorcycles within the ULEZ was agreed under the previous consultation in March 2015.

8.10.9 All vehicles contribute to air pollutant emissions and as such, the proposed ULEZ encompasses all vehicle types, albeit with different standards proposed in reflection of their contribution to emissions. For motorcycles, their contribution to emissions is acknowledged to be small compared to other vehicle types. The size of this contribution is reflected in the fact that the standard they would be required to meet to comply with ULEZ is different to other vehicles (Euro 3 compared to Euro 4 for petrol and Euro 6/VI for diesel). Euro 3 was introduced as a mandatory standard for motorcycles in July 2007. This means that a motorcycle could be up to 13 years old and still be driven in the ULEZ without the need to pay a daily charge. Additionally, motorcycles manufactured before 1977 and taxed in the DVLA's historic vehicle tax class would be exempt.

8.10.10 If motorcycles are included in the ULEZ as proposed, NO_x emissions from this vehicle type will be reduced by eight per cent in 2019 and exhaust PM_{10} emissions will be reduced by 12 per cent. Compared to other vehicle types, this is a relatively small reduction, but it is nonetheless important to ensure fairness as all other vehicle types are included in the scheme. Most motorcycles will meet the ULEZ standards by the time the scheme is introduced in 2019 and their owners will therefore not need to take any action. Fleet composition data from the Department for Environment, Food & Rural Affairs (Defra) indicates that on an average day 87 per cent of motorcycles will be compliant (ie Euro 3 or above) in 2019. With ULEZ in place, we forecast that this will rise to 95 per cent, meaning that only a small number of motorcycles would be liable to pay the charge.

8.10.11 Introducing a Euro 3 standard will also help to reduce hydrocarbon emissions from older two-stroke motorcycle engines.

Taxis and private hire vehicles

8.10.12 Fitzrovia West Neighbourhood Forum, Licensed Taxi Drivers' Association, London Borough of Hackney, London Borough of Waltham Forest, London Councils and Uber commented on this issue.

8.10.13 The Licensed Taxi Drivers' Association supported the exemption for taxis.

8.10.14 Fitzrovia West Neighbourhood Forum and London Borough of Waltham Forest stated that taxis should be included in the ULEZ.

8.10.15 Uber supported a sunset period or exemption for wheelchair accessible PHVs.

8.10.16 London Borough of Hackney, London Borough of Waltham Forest and London Councils stated that they would not support exemption for PHVs from the ULEZ.

TfL response

8.10.17 Taxis are already subject to a 15-year age limit. We require them to be purpose-designed for London's unique street network and to be fully accessible to wheelchair users. This means a taxi is a specialist vehicle, which has resulted in a limited choice for black cab drivers. Given the requirement for taxis to accept any fare up to 12 miles within Greater London there is no option for taxis to avoid the ULEZ by not driving into the zone. From 1 January 2018, we will no longer license new diesel taxis and vehicles new to licensing will need to meet zero emission capable requirements instead. It is our opinion that this is the best approach to reducing emissions from the taxi fleet while supporting the industry.

8.10.18 No exemptions for PHVs were proposed as part of this consultation.

8.10.19 The Stage 2 consultation on the T-Charge proposed an exemption for PHVs in line with the discounts and exemptions for the Congestion Charge. The T-Charge was agreed in February 2017 and the reasoning behind this was set out in the report to the Mayor on the Stage 2 consultation. There were no proposals regarding the T-Charge as part of the Stage 3a consultation.

Historic and showmen's vehicles

8.10.20 The following 10 stakeholders commented on historic and showmen's vehicles: Federation of British Historic Vehicle Clubs, London Borough of Camden, London Borough of Croydon, London Borough of Hackney, London Borough of Southwark, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, National Association of Wedding Car Professionals and Routemaster Association.

8.10.21 National Association of Wedding Car Professionals and Routemaster Association stated their support for the historic vehicle discount.

8.10.22 London Borough of Camden and London Borough of Waltham Forest opposed the historic vehicle discount.

8.10.23 London Borough of Camden opposed the showmen's vehicle discount.

8.10.24 London Borough of Croydon, London Borough of Hackney, London Borough of Southwark, London Borough of Wandsworth, London Councils stated that showmen's and historic vehicle discounts should only apply on application for special events.

TfL response

8.10.25 The ULEZ currently exempts historic tax class vehicles on the basis that there are limited numbers and it is not practical or possible to upgrade or retrofit them without alterations that would result in a significant loss of historic character.

8.10.26 Data from January to June 2017 indicates that, on average, approximately six vehicles per day that would potentially qualify for a historic vehicle

exemption enter the Congestion Charging zone during charging hours. The benefit of including these vehicles in the scope of the charge would be negligible.

8.10.27 An option where historic vehicles are not generally exempt from the ULEZ, but can apply for an exemption for special events, was considered, but it is not considered cost effective due to the increased costs and administrative burden to both TfL and the event organisers, and the emissions benefits would be limited.

8.10.28 The LEZ and the ULEZ currently offer a 100 per cent discount for showmen's vehicles on the basis that there are limited numbers, and it is not physically possible to retrofit these vehicles.

8.10.29 There are strict and limited criteria as to what can be designated as a showman's vehicle, one of which is that it is used solely by that person for the purposes of his or her business and no other purpose. By definition, these vehicles are used solely for the purpose of events.

8.10.30 Data from January to June 2017 indicates that, on average, two showmen's vehicles were observed entering the Congestion Charge zone during charging hours per day.

Blue Badge exemptions

8.10.31 The following three stakeholders made comments on Blue Badge holders: British Lung Foundation, Friends of the Earth and London Sustainability Exchange, stating that there should be a sunset or exemption for Blue Badge holders.

TfL response

8.10.32 The ULEZ does not place a blanket charge on all vehicles entering the zone, but restricts the choice of vehicle. However, there will be significant numbers of second hand compliant vehicles available as set out in the Consultation and information document.

8.10.33 Unlike disabled tax class, Blue Badge status is related to the individual rather than the vehicle. Given the wide range of available compliant vehicles it is not considered appropriate to offer a sunset period or exemption.

Comment on emergency service vehicles

8.10.34 Brewery Logistics Group, City of London Corporation, London Ambulance Service, London Fire and Emergency Planning Authority, Metropolitan Police Service, Road Haulage Association, Royal Borough of Greenwich and Westminster City Council commented on emergency service vehicles.

8.10.35 City of London Corporation, Road Haulage Association, Royal Borough of Greenwich and Westminster City Council stated that emergency service vehicles should be exempt from the ULEZ.

8.10.36 Brewery Logistics Group stated that if emergency service vehicles are given a sunset period then this should apply to freight vehicles as well.

8.10.37 London Ambulance Service, London Fire and Emergency Planning Authority and Metropolitan Police Service supported the proposals to bring forward the ULEZ but requested that TfL work with authorities to reduce the overall cost of the scheme.

TfL response

8.10.38 Vehicles of London's Emergency Services are subject to the ULEZ scheme and will be subject to its emission standards and charges in central London from April 2019, rather than September 2020, if the Mayor confirms the Variation Order.

8.10.39 The Emergency Services operate a wide range of vehicles covering a wide range of operational needs and so a blanket exemption for all their vehicles is not considered appropriate. The London Fire Brigade and Metropolitan Police Service vehicles form part of the wider GLA family fleet and it is important that these vehicles set an example in reducing pollution. TfL are in discussions with the Emergency Service providers to better understand the impact of bringing the ULEZ forward by 17 months on their fleets.

8.10.40 There will be acceleration in fleet replacement in response to the ULEZ. Given the relatively small size of the central London Zone there is opportunity for the Emergency Services to manage fleets so that compliant vehicles are based within the Zone. As the air pollution problems are most severe in central London this is an appropriate approach.

8.10.41 It is acknowledged, however, that it is not always possible to predict which emergency vehicles will be required to enter specific geographic areas and that specific incidents will require support from vehicles based across Greater London and even from outside it. Some flexibility would therefore be appropriate.

8.10.42 Government guidance on the implementation of Clean Air Zones suggests a memorandum of understanding (MoU) between the local authority and the emergency services is an appropriate approach.

8.10.43 The Mayor is in discussions to agree a bespoke MoU with each service regarding their plans to accelerate their fleets' ULEZ compliance and the treatment of non-compliant vehicles in central London from April 2019.

8.10.44 Although their vehicles will not be formally exempted from the ULEZ scheme TfL has the legal and administrative powers to suspend or waive the charges in respect of any non-compliant emergency service vehicles where appropriate. Vehicles responding to emergencies or other

operationally critical events in areas outside of their usual location will have their ULEZ charges waived.

8.10.45 The MoU approach will make clear that emergency service vehicles are those that would only be used in emergency response or similar. The organisations will be asked to supply details of such vehicles so that any not compliant with ULEZ emissions standards are not charged

8.10.46 The MoUs propose different timescales for achieving compliant fleets tailored as much as possible to each individual emergency services organisation. Therefore it is expected that the arrangements will be time limited akin to the sunset period offered to residents and disabled vehicles.

8.10.47 It is recommended that the issue is dealt with by way of MoUs with the organisations rather than by means of a formal modification to the Variation Order providing a blanket legal exemption for such vehicles.

8.10.48 The MoUs between TfL and the emergency services will be published later in 2017.

8.10.49 Unlike emergency service response vehicles, freight vehicles have the option to avoid entering the zone or to pass on any charges from non compliant vehicles to customers. It would therefore not be appropriate to treat freight vehicles the same as emergency response vehicles.

Support for other exemptions or sunset periods

8.10.50 Thirteen stakeholders supported other exemptions, discounts or sunset periods not listed above: Age UK, Association of Vehicle Recovery Operators, Brewery Logistics Group, Environmental Services Association, Federation of Small Businesses, Freight Transport Association, Green Flag, John Lewis Partnership, Road Haulage Association, Royal Mail, Veolia, Wandsworth Community Transport and Westminster City Council.

8.10.51 Age UK and Wandsworth Community Transport supported an exemption or sunset for charitable minibuses.

8.10.52 Association of Vehicle Recovery Operators, Freight Transport Association and Road Haulage Association supported an exemption or sunset for recovery vehicles.

8.10.53 Environmental Services Association, Veolia and Westminster City Council supported a sunset period for refuse collection vehicles.

8.10.54 Federation of Small Businesses, Freight Transport Association and John Lewis Partnership stated the residents' sunset should also apply to businesses based in the zone.

8.10.55 Royal Mail stated that it should have a sunset period.

8.10.56 Green Flag stated that there should be an exemption for breakdown vehicles.

8.10.57 Freight Transport Association and Road Haulage Association stated that there should be exemptions for other specialist vehicles.

8.10.58 Freight Transport Association stated there should be sunset periods for vans and small operators.

8.10.59 Brewery Logistics Group stated that there should be a sunset period for its members.

TfL response

8.10.60 Only a small number of discounts and exemptions were proposed within the original ULEZ consultation to optimise the emissions benefits of the scheme.

8.10.61 There are of course a very high number of businesses located or operating within the ULEZ, as would be expected for the Central Activities Zone. Offering a discount or exemption for businesses would therefore seriously impact the effectiveness of the scheme in reducing air pollution and improving Londoners' health.

8.10.62 With regard to a more tightly-defined discount, such as for small businesses or where there is 'genuine hardship', any such discount would, in practical terms, be extremely difficult to define and implement. Again, this approach would undermine the scheme and, furthermore, lead to calls for other discounts for other groups who felt that they had been adversely impacted by the scheme.

8.10.63 It is not considered appropriate to have an exemption for charity minibuses; such an exemption does not apply in the LEZ (which is a much greater area than ULEZ) and defining what qualified for such an exemption would in practice be difficult. It would also give rise to calls for other exemptions. However as outlined above, it is proposed to put a sunset period in place for certain disability-adapted vehicles, which in principle includes some minibuses. Minibuses which do not comply with the ULEZ standards would be subject to the lower charge of £12.50 per day, meaning that occasional trips are still affordable.

8.10.64 With regards to other discounts and exemptions proposed, we consider that there will be sufficient options for operators to buy compliant vehicles, retrofit existing vehicles, manage the deployment of their fleets or, if necessary, pay the charge for entering the ULEZ. As such it would not be appropriate to undermine the health benefits of the scheme with additional discounts and exemptions.

Oppose other exemption

8.10.65 Eight stakeholders stated their opposition to other discounts and exemptions not listed above: Euston Air Quality and Trees Group, London Borough of Camden, London Borough of Hackney, London Borough of

Waltham Forest, London Councils, Mineral Products Association and Victoria BID.

8.10.66 London Borough of Camden, London Borough of Hackney, London Borough of Waltham Forest and London Councils opposed the exemption for specialist off-road vehicles.

8.10.67 London Borough of Camden, London Borough of Hackney, London Borough of Waltham Forest and London Councils, stated they would oppose exemptions for roadside recovery vehicles and accredited breakdown vehicles.

8.10.68 London Borough of Camden, London Borough of Waltham Forest, London Councils and Victoria BID stated opposition to the exemption for Ministry of Defence (MoD) vehicles.

8.10.69 Euston Air Quality and Trees Group stated that there should be no exemption for the New Routemaster.

8.10.70 Mineral Products Association stated that volumetric mixers should not be exempt from the ULEZ.

TfL response

8.10.71 No exemptions for roadside recovery vehicles and accredited breakdown vehicles were proposed as part of this consultation.

8.10.72 The Stage 2 consultation on the T-Charge proposed exemptions for roadside recovery vehicles and accredited breakdown vehicles in line with the discounts and exemptions for the Congestion Charge. The T-Charge was agreed in February 2017 and the reasoning behind this was set out in the report to the Mayor on the Stage 2 consultation. There were no proposals regarding the T-Charge as part of the Stage 3a consultation.

8.10.73 The exemption for Ministry of Defence vehicles applies only to vehicles used for naval, military or air force purposes. This is because it is not legally permissible to levy a charge against such vehicles. The ‘civilian fleet’ operated by the MOD will be subject to the ULEZ.

8.10.74 Specialist off-road vehicles refers to the following non-road going vehicle types under the following DVLA tax classes: agricultural machines (40), digging machine (41), mobile crane (42), works truck (43), mowing machine (44), limited use (77) and road construction equipment (80). These use engine types that are subject to different regulations to road-going vehicles and cannot be categorised under Euro standards. The non-road mobile machinery Low Emission Zone (NRMM LEZ) seeks to tackle emissions from these sources by use of planning conditions.

8.10.75 This legislation exempts any vehicle in respect of which Transport for London is satisfied that it is not a vehicle constructed or adapted for general use on roads. Our view is that volumetric mixers have been constructed or

adapted for general use on roads and so will be subject to the requirements of the ULEZ for HGVs.

8.10.76 No exemptions for buses have been proposed. The 2014 ULEZ consultation set an emissions standard for buses lower than Euro VI to accommodate the New Routemaster. However, we will be re-engineering these buses to ensure that all New Routemasters comply with the Euro VI emission. As such we will be modifying the VO to raise the standard for buses to Euro VI, in line with similar vehicles.

TfL recommendation

8.10.77 Modify VO to require all TfL buses to meet the Euro VI emissions standard.

8.11 Theme K: Vehicle bans

8.11.1 The following five stakeholders raised issues in relation to this theme: Bloomsbury Association, Euston Air Quality and Trees Group, Fitzrovia Neighbourhood Association, London Assembly Environment Committee – UKIP Group and London Borough of Islington.

8.11.2 Among public and business respondents there were 805 comments on this theme. Full details are available in Chapter 5.

8.11.3 Bloomsbury Association and Fitzrovia Neighbourhood Association stated that there should be a ban on all motor vehicle movements (except emergency vehicles) entering the central area on high pollution days.

8.11.4 Euston Air Quality and Trees Group stated that diesel engines should be banned in the daytime.

8.11.5 London Assembly Environment Committee – UKIP Group stated its support for investigating the effects of a possible total ban on diesel vehicles in the central and Heathrow areas with a 10-year notice period.

8.11.6 London Borough of Islington stated it would support a ban on all diesel vehicles.

TfL response

8.11.7 Legal advice has indicated that the Mayor does not have the power to ban vehicles over a wide area for the purposes of air quality.

8.11.8 We recognise the need for an acceptable balance between the projected reduction in emissions and likely cost of compliance for Londoners, businesses and visitors to the Capital. We believe that introducing the option to pay a charge is fairer than instigating an outright ban.

8.11.9 As set out in the MTS and LES, TfL and the Mayor are considering options for appropriate emergency measures to be introduced during high pollution episodes.

9. Other issues raised

9.1 Introduction

9.1.1 The following section captures issues raised that did not specifically relate to the ULEZ. It also incorporates comments made on the consultation process itself and on wider transport and environment policy.

9.1.2 The themes addressed are as follows:

- ***Themes L and M: Alternative and supporting policy suggestions***
- ***Theme N: Consultation***

9.2 Themes L and M: Alternative and supporting policy suggestions

9.2.1 The following 54 stakeholders raised alternative and supporting policy suggestions: Autogas, Better Bankside, Better Streets for Enfield, Bloomsbury Association, Brewery Logistics Group, British Lung Foundation, Calor Gas, Campaign for Better Transport, Caroline Russell AM, CEMEX, Chartered Institute of Environmental Health, ClientEarth, Climate Change Centre Reading, Confederation of British Industry London, Cross River Partnership, Enfield Cycling Campaign, Enterprise Rent-A-Car, Environmental Services Association, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, Federation of Small Businesses, Fitzrovia Neighbourhood Association, Fitzrovia West Neighbourhood Forum, Freight Transport Association, Friends of the Earth, GMB Pro Drivers Union, Greenpeace, John Lewis Partnership, Lambeth Green Party, Licensed Taxi Drivers' Association, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Croydon, London Borough of Hackney, London Borough of Haringey, London Borough of Hounslow, London Borough of Islington, London Borough of Waltham Forest, London Borough of Wandsworth, London Councils, London Cycling Campaign, London First, London Tourist Coach Operators' Association, Medact, Mineral Products Association, Motorcycle Action Group, Muswell Hill Sustainability Group, Northbank BID, Road Danger Reduction Forum, Sustrans, The Entertainment Agents' Association, Tower Hamlets Wheelers and Uber.

9.2.2 Among public and business respondents there were 3,156 comments suggesting supporting policies and 844 suggesting alternative policies. Full details are available in Chapter 5.

Issues raised in relation to this theme:

- ***Support and opposition to cycling***

- ***Public transport***
- ***Electric and Hydrogen vehicles***
- ***Pedestrians***
- ***Idling***
- ***Freight***
- ***Buses***
- ***Taxis and PHVs***
- ***Road user charging***
- ***Traffic reduction***
- ***Silvertown Tunnel***
- ***Other emissions sources***
- ***Other policy suggestions***

Cycling

9.2.3 The following 23 stakeholders made comments regarding cycling: Better Streets for Enfield, Brewery Logistics Group, Caroline Russell AM, Chartered Institute of Environmental Health, ClientEarth, Enfield Cycling Campaign, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, GMB Pro Drivers Union, Greenpeace, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Islington, London Borough of Waltham Forest, London Councils, London Cycling Campaign, Medact, Motorcycle Action Group, Northbank BID, Road Danger Reduction Forum, Sustrans and Tower Hamlets Wheelers.

9.2.4 Better Streets for Enfield, Caroline Russell AM, Chartered Institute of Environmental Health, ClientEarth, Enfield Cycling Campaign, European Network of Child Friendly Cities, Euston Air Quality and Trees Group, Greenpeace, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Islington, London Borough of Waltham Forest, London Councils, London Cycling Campaign, Medact, Northbank BID, Road Danger Reduction Forum, Sustrans and Tower Hamlets Wheelers stated their support for more measures to enable cycling such as increased investment in cycle infrastructure.

9.2.5 Brewery Logistics Group, GMB Pro Drivers Union, London Assembly Environment Committee – UKIP Group and Motorcycle Action Group stated their opposition to segregated cycling facilities on the basis they cause pollution.

TfL response

9.2.6 We recognise the need for complementary measures to reduce traffic demand and promote alternative modes of travel. The draft MTS has set an

ambitious target of an 80 per cent share of trips made by walking, cycling and public transport by 2041, with infrastructure needed to enable this growth in cycling. TfL's Strategic Cycling Analysis, published in June 2017, provides a robust, analytical framework to help develop a long-term strategic plan for core cycle routes in London in line with the Healthy Streets Approach.

9.2.7 We are investing a record £154m per year in cycling over the next five years to make cycling safer and easier and to help deliver the Healthy Streets Approach across London. This investment includes continued funding for the completion of initiatives such as the Mini-Holland programme, which is currently transforming the environment for pedestrians and cyclists in three outer London boroughs, and the continuing delivery of more Quietway routes across London, with more than 20 to be rolled out during this Mayoral term.

9.2.8 We are also committed to pressing ahead with more Cycle Superhighways, and will complete the extension of the North-South Cycle Superhighway and work to deliver Cycle Superhighway 11 from Swiss Cottage to the West End. In September 2017, we opened consultations on Cycle Superhighway 4 from Tower Bridge to Greenwich and Cycle Superhighway 9 from Olympia towards Hounslow, with each route tackling a number of traffic-dominated roads and junctions.

9.2.9 Through increasing investment, we will also provide funding to London's boroughs through a new Liveable Neighbourhoods programme to make town centres and neighbourhoods attractive places in which to walk, cycle and spend time.

9.2.10 It is very difficult to link changes in air quality at a particular location to specific schemes such as segregated cycle facilities, because of the number of contributory factors to air quality. However, in general, segregated cycle facilities are not traffic-generating schemes, even though they can result in some redistribution of existing motor traffic flows. We continue to monitor the impact of segregated cycle facilities as part of our evaluation process.

Public transport

9.2.11 The following 14 stakeholders made comments on public transport: Campaign for Better Transport, Caroline Russell AM, Chartered Institute of Environmental Health, ClientEarth, GMB Pro Drivers Union, Greenpeace, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Croydon, London Borough of Islington, London Borough of Waltham Forest, London Councils, London Cycling Campaign, Medact and Sustrans.

9.2.12 Most of the above stakeholders stated their support for more investment in public transport.

9.2.13 London Borough of Croydon stated its support for extensions to Tramlink.

9.2.14 Caroline Russell AM stated that there should be improvements to the accessibility of the Tube network for disabled people.

9.2.15 GMB Pro Drivers stated that using public transport at night would be more dangerous for people, especially lone women.

TfL response

9.2.16 We are committed to reducing emissions across London by encouraging a shift towards public transport as part of the draft MTS target for 80 per cent of trips to be made by public transport, walking and cycling by 2041. Full details of proposals for public transport are set out in the published draft MTS, including proposals to improve the accessibility and security of the transport network.

9.2.17 London Borough of Croydon is currently exploring potential extensions of the tram network from Croydon town centre. We are assisting London Borough of Croydon with this work. If the current study recommends further consideration of tram extensions, we will review the findings and consider whether the extensions are likely to be affordable, deliverable, value for money and acceptable to local residents and other road users. This will inform whether any extensions should be considered further.

Electric and hydrogen vehicles

9.2.18 The following nine stakeholders raised issues around electric and hydrogen vehicles: Better Bankside, GMB Pro Drivers Union, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Islington, London Borough of Waltham Forest, London Councils, London First, Muswell Hill Sustainability Group and Uber.

9.2.19 All of the above stated that more electric vehicle (EV) charging infrastructure was required. Better Bankside and London First offered their assistance in helping to deliver the infrastructure.

TfL response

9.2.20 The Mayor's draft Transport Strategy sets out the actions required to reach zero emission transport and accelerate the uptake of ultra low and zero emission technologies, with public fleets taking the lead. Our Electric vehicle charging infrastructure: location guidance for London provides evidence based guidance to help identify where best to create charging infrastructure to meet the current and future needs of electric vehicle users.

9.2.21 Together with the GLA and boroughs, we are working to invest in new charging infrastructure to support a major expansion in electric vehicles. Using £13m of government funding from the Go Ultra Low Cities scheme, we will deliver much-needed new charge points for residents, commercial

users and car clubs by 2020. This scheme will also create new Neighbourhoods of the Future, which will promote innovative charging infrastructures, and policies and initiatives to support the switch to electric vehicles across different fleets.

9.2.22 Working with the private sector, we will also deliver at least 300 rapid charge points by the end of 2020 to support high mileage users, such as the freight, taxi and private hire industries, to switch to electric vehicles. The first rapid charge points were installed in October 2017.

9.2.23 We are working with the GLA to develop new policies for the Mayor's London Plan to ensure that, where appropriate, new developments provide suitable EV charging infrastructure to support the future uptake of these vehicles.

9.2.24 We welcome the support of private landowners to help deliver the strategy.

Pedestrians

9.2.25 The following 13 stakeholders stated their support for measures to encourage more walking trips, such as pedestrianisation and the Healthy Streets approach: Better Streets for Enfield, Bloomsbury Association, Caroline Russell AM, European Network of Child Friendly Cities, Fitzrovia West Neighbourhood Forum, Greenpeace, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Waltham Forest, London Councils, London Cycling Campaign, Medact, Northbank BID and Tower Hamlets Wheelers.

TfL response

9.2.26 Our Healthy Streets approach will make London a more attractive place to walk by delivering improvements to streets part of the TfL Road Network (TLRN)

9.2.27 We provide funding to boroughs to deliver improvements to local streets as part of their Local Implementation Plans. The Healthy Streets approach will encourage investment in walking routes including the Healthy Routes initiative for routes to schools and other destinations, making streets safer, more accessible and more attractive places to walk. We also promote walking through Legible London, the Walk London Network and engagement with schools and businesses.

Idling

9.2.28 Better Bankside, Bloomsbury Association and Climate Change Centre Reading stated that more action could be taken around engine idling.

TfL response

9.2.29 Engine idling is currently a traffic offence under the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002. We have made representations to the Government that the penalty for idling should be higher and brought in line with that of other traffic offences.

9.2.30 We promote action on idling through bus driver training, taxi marshals and anti-idling toolkits produced through the Fleet Operator Recognition Scheme.

9.2.31 During periods of high pollution, we utilise roadside variable messaging signs to advise drivers to switch off engines when stationary.

9.2.32 Through the Mayor's Air Quality Fund, we support Vehicle Idling Action, which is a London-wide behaviour change campaign across 11 boroughs and the City of London Corporation.

9.2.33 The Mayor's Air Quality Fund has provided £11m of funding to London's five Low Emission Neighbourhoods (LENs). Many of these neighbourhoods have set up behavioural change campaigns and anti-idling zones to reduce the incidence of engine idling.

9.2.34 We have established several air quality priority locations where a zero tolerance approach to engine idling will be taken by the police.

Freight

9.2.35 Bloomsbury Association, CEMEX, Cross River Partnership, Freight Transport Association, GMB Pro Drivers Union, John Lewis Partnership, London Borough of Islington, London Cycling Campaign and Mineral Products Association raised issues regarding freight transport.

9.2.36 CEMEX and the Mineral Products Association indicated their support for more freight to be transported by river and rail.

9.2.37 London Borough of Islington and London Cycle Campaign stated their support for greater use of cargo bikes to transport freight.

9.2.38 The Freight Transport Association and John Lewis Partnership called for commercial vehicles to be allowed to use bus lanes and improved facilities for loading in central London.

9.2.39 Bloomsbury Association, Freight Transport Association and John Lewis Partnership stated there should be improvements to the London Lorry Control Scheme, with Bloomsbury Association suggesting lorries over a certain size should be banned.

9.2.40 The Freight Transport Association called for Euro VI vehicles to receive a Congestion Charge discount as an additional incentive.

9.2.41 Cross River Partnership and London Borough of Islington supported consolidation of freight to reduce overall delivery and servicing trips.

9.2.42 GMB Pro Drivers Union stated that there should be restrictions on deliveries at peak times.

TfL response

9.2.43 Rather than restricting deliveries, the draft MTS sets an ambitious target to reduce freight journeys into central London in the morning peak by 10 per cent. This would be achieved by a combination of shifting some deliveries off the road altogether (for example on rail or water), retiming deliveries to another time of day or consolidating supply chains to reduce the number of journeys required.

9.2.44 Cargo bikes have a role to play in reducing congestion and emissions, especially for 'last mile' freight journeys and in busy town centres. We are conducting research to explore how we can increase their use and would be happy to include any interested stakeholders.

9.2.45 Consolidating freight journeys is one of the measures set out in the draft MTS as we believe this has a role to play in reducing congestion and emissions.

9.2.46 We constantly review the TLRN to ensure that bus lanes operate as required to keep traffic moving. In some cases, this may include permitting HGV access on specific sections. In the majority of cases, however, there are a number of factors explaining why HGVs would not be permitted to use bus lanes. Further increasing the level of traffic in bus lanes would be likely to lead to an increase in journey times for bus services and could also increase the risk of a collision for vulnerable road users (including cyclists and motorcyclists), who are permitted to use bus lanes on the TLRN to reduce the potential for conflict with other road users.

9.2.47 We do not believe it appropriate to offer additional discounts on the Congestion Charge for operators of Euro VI vehicles as Euro VI vehicles are incentivised for freight operators via the ULEZ.

9.2.48 Further details on freight policies are set out in the Mayor's Transport Strategy.

Buses

9.2.49 Fitzrovia West Neighbourhood Forum, London Borough of Haringey, London Borough of Hounslow, London Borough of Wandsworth, London Councils, London Cycling Campaign, London First and Tower Hamlets Wheelers raised issues in relation to buses.

9.2.50 Fitzrovia West Neighbourhood Forum, London Cycling Campaign, London First and Tower Hamlets Wheelers stated their support for a greater roll-out of low emission and electric buses.

9.2.51 London Borough of Haringey stated that emissions reductions from buses Londonwide should be prioritised.

9.2.52 London Borough of Hounslow requested a low emission bus corridor on Chiswick High Road.

9.2.53 London Borough of Wandsworth requested zero emission capable (ZEC) buses on Putney High Street and other pollution hotspots.

TfL response

9.2.54 To support the ULEZ, all double-decker buses operating in the Congestion Charging zone will be hybrid electric vehicles and all single-decker buses in the zone will emit nothing from their engine exhaust (ie they will be full electric or hydrogen models). This means our fleet will account for only 13 per cent of road transport emissions in central London by 2020, compared with 35 per cent in 2013.

9.2.55 We will ensure all of our buses in central London are compliant with the ULEZ Euro VI emissions standard in 2019, ahead of its currently planned introduction (ie 2020), and that our double-decker buses operating in the area will be hybrid. We are also expanding an innovative Euro VI bus retrofit programme to more than 4,000 vehicles by 2020 (up from 800) and to 5,200 by 2021. Our ambition is to purchase only hybrid or zero emission double-decker buses from 2018.

9.2.56 On 6 January 2017, the Mayor announced plans for 10 more Low Emission Bus Zones, deploying the cleanest buses on the Capital's most polluted routes to cut harmful NO_x emissions. This is in addition to the two zones already announced at Putney High Street implemented in March 2017 and between Brixton and Streatham that will be implemented in November 2017 respectively. All the zones will be delivered by 2020. Chiswick High Road will be one of the Low Emission Bus Zones.

9.2.57 The zones, which are all outside the ULEZ, are expected to reduce NO_x emissions from buses along the routes by around 80 per cent. Air quality hotspots have been identified to target areas where people are exposed to some of the highest levels of NO_2 pollution and where older buses contribute significantly to road transport emissions. The benefits of operating the cleanest buses will be felt across the whole city as they travel on to other areas along the full length of their routes.

9.2.58 The Low Emission Bus Zones will use a combination of hybrid and clean buses that meet Euro VI standards. These buses are part of an improvement programme for 3,000 buses outside central London. They will also utilise a number of bus priority schemes that ensure buses are able to keep moving, cutting idling emissions and speeding up journey times for passengers.

9.2.59 As set out in section 8.10 TfL will be revising the VO to ensure that all TfL buses need to meet the Euro VI standard.

Taxis and PHVs

9.2.60 Autogas, Better Bankside, Calor Gas, Euston Air Quality and Trees Group, Licensed Taxi Drivers' Association, London Assembly Environment Committee – UKIP Group, London First and Uber raised issues regarding taxis and PHVs.

9.2.61 Among public and business respondents there were 483 comments made in relation to taxis and PHVs.

9.2.62 Autogas and Calor Gas suggested more could be done to encourage taxi drivers to convert their vehicles to run on liquid petroleum gas (LPG).

9.2.63 Euston Air Quality and Trees Group, Licensed Taxi Drivers' Association and London Assembly Environment Committee – UKIP Group, suggested more should be done to reduce the number of PHVs.

9.2.64 London First and Uber stated that there should be more rapid charging provision for PHVs.

9.2.65 Euston Air Quality and Trees Group stated that minicabs should pay the Congestion Charge and Emissions Surcharge and that there should be a scrappage scheme for black cabs.

9.2.66 Licensed Taxi Drivers' Association stated that the ZEC requirements for PHVs should be brought forward from 2023.

TfL response

9.2.67 The Mayor published his Taxi and Private Hire Action Plan in September 2016[18]. This outlined a number of actions to ensure the markets for licensed taxi drivers and private hire drivers are fair, including steps to reinforce the two-tier system between taxi and private hire services. These measures are currently being taken forward by the Mayor and TfL in cooperation with trade and industry representatives.

9.2.68 The plan recognises the current significant contribution to air pollution from taxis and includes a number of steps to establish the Capital's fleet as the greenest in the world. Most importantly, it includes a number of initiatives to support the requirement that all new taxis licensed from 1 January 2018 will need to be zero emission capable[19].

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[18] http://content.tfl.gov.uk/taxi-and-private-hire-action-plan-2016.pdf

[19] A ZEC taxi must emit up to 50g/km CO_2 with a minimum 30-mile zero emission range and be petrol if an internal combustion engine is used.

9.2.69 We confirmed similar emissions requirements for newly licensed PHVs as part of an extensive consultation undertaken by the previous mayor in 2015. A Euro 6 requirement will be introduced from 1 January 2018, leading to the phased introduction of a zero emission capable requirement from 2020 for newly manufactured vehicles and 2023 for all newly licensed vehicles[20]. Taking into account the difference in maximum vehicle age limits, this will mean all taxis and PHVs will be ZEC by 2033 at the latest.

9.2.70 The timescale for these licensing requirements was decided following an extensive consultation with both trades, taking into account the characteristics of each fleet with regard to vehicle availability and cost, contribution to emissions and how vehicles are used in London. Further information on the consultation and decision-making process can be found online at https://consultations.tfl.gov.uk/environment/ulez-2/

9.2.71 As the law currently stands, we are legally obliged to issue a licence to any driver who meets the criteria for licensing and are unable to cap the number of PHVs in London. The power to cap PHV numbers will be of limited value unless we, along with a significant number of other concerned licensing authorities and trade bodies, succeed in lobbying the Government to take control of the issue of cross-border hiring. As the law currently stands, cross-border hiring means that PHVs can carry out bookings anywhere in England and Wales, provided the vehicle, driver and operator are licensed by their local licensing authority. This means that a private hire driver licensed by an authority outside of London can undertake a booking within the Capital. Instances of cross-border hiring are growing rapidly across the country, making this a national problem that needs a national solution. It therefore needs to be looked at in tandem with TfL having the ability to cap the number of licences, both of which are matters for government legislation. TfL and the Mayor continue to lobby the Government to pursue a cap on the number of PHVs and take control of cross-border hiring.

9.2.72 To encourage the uptake of ZEC taxis, on 28 July 2017, the Mayor launched our Taxi Delicensing Scheme, which aims to take the dirtiest, most polluting taxis off London's roads. Owners of taxis which are between 10 and 15 years old can apply for a grant of up to £5,000 in exchange for retiring their taxi. The amount of grant received for retiring a taxi is scaled dependent on age, with the largest grant received for scrapping a 10 year old taxi. For example, a 10-year-old taxi would receive the highest amount of £5,000, scaling down to £1,200 for a vehicle aged between 14 and 15 years old. Further information on the taxi delicensing scheme can be found online at: https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/cleaner-

[20] A ZEC PHV can emit up to 50g/km of CO_2 with a minimum zero emission range of 10 miles, or up to 75g/km of CO_2 with a minimum 20-mile zero emission range.

greener-taxis. To help reduce the purchase price of new ZEC taxis, the Government's Plug-in Taxi Grant will give taxi drivers up to £7,500 off the price of a new ZEC taxi. The first ZEC taxis are now available to order with deliveries anticipated end of the year.

9.2.73 We are committed to investigating the role of Private Hire Vehicles (PHV) in causing congestion in central London and what measures could be used to address this. Work to study the impacts of a potential removal of the Congestion Charge exemption for PHVs is underway. This work will inform any potential changes to the Congestion Charge, which would be subject to a statutory public consultation.

9.2.74 With regard to the issue of PHV exemption from the Emissions Surcharge, our PHV licensing requirements impose a 10-year age limit on the majority of vehicles. There are limited five-year extensions for wheelchair accessible vehicles and other specialist PHV types, decided on a case-by-case basis. As a result of these age limits, nearly all PHVs are compliant with the T-Charge standard. Data from July 2017 indicated that only 69 PHVs licensed in all of Greater London do not meet the T-Charge standard. As all new licensed PHVs need to meet standards stricter than the T-Charge standard, this number is likely to reduce further by the implementation date.

Road user charging

9.2.75 Campaign for Better Transport, Caroline Russell AM, Federation of Small Businesses, GMB Pro Drivers Union, London Assembly Environment Committee – UKIP Group, London Cycling Campaign, London First and Road Danger Reduction Forum made comments around wider road user charging.

9.2.76 Campaign for Better Transport, Caroline Russell AM, London Cycling Campaign and Road Danger Reduction Forum indicated their support for a pay as you drive road user charging system.

9.2.77 Federation of Small Businesses and London First indicated they would support a more sophisticated consolidated charging system that encompassed the Congestion Charge, ULEZ and tolled river crossings.

9.2.78 GMB Pro Drivers Union indicated its support for a banded Congestion Charge system.

9.2.79 London Assembly Environment Committee – UKIP Group stated its opposition to wider road pricing.

TfL response

9.2.80 The draft MTS sets out the current position on a future road pricing scheme. Any future charging scheme would be subject to detailed policy development and consultation.

Traffic reduction

9.2.81 Brewery Logistics Group, Caroline Russell AM, ClientEarth, Enfield Cycling Campaign, London Assembly Environment Committee, London Cycling Campaign, London First, Northbank BID, Sustrans and Tower Hamlets Wheelers made comments around reducing traffic and congestion.

9.2.82 Caroline Russell AM, ClientEarth, Enfield Cycling Campaign, London Assembly Environment Committee, London Cycling Campaign, London First, Northbank BID, Sustrans and Tower Hamlets Wheelers supported a general reduction in motorised traffic.

TfL response

9.2.83 Our approach to the road network is informed by the need to develop the transport capacity that sustains economic growth while also ensuring that we have attractive streets and places and manage the environmental and safety implications of road traffic effectively.

9.2.84 Around 75 per cent of traffic congestion in London can be attributed to more demand, particularly at peak times, than the road network is capable of accommodating. The remaining 25 per cent is generally due to a specific incident or event. Our approach to reducing congestion and improving air quality, therefore, not only includes measures to improve the operation of the road network, but also to change the way people, and goods, travel.

9.2.85 To target the immediate congestion problems facing London, the Mayor outlined a series of measures to improve reliability for all road users, and these include improved communication with road users, improved asset management better coordination of roadworks, and the use of tools to manage congestion away from vital parts of the road network.

9.2.86 In the longer term, our aim is to reduce car dependency and enable more trips to be made by walking, cycling and public transport. Our Business Plan, published in December 2016, has a new Healthy Streets approach at its heart and includes investment in new bus priority measures, cycle routes and schemes to improve the public realm and pedestrian facilities, such as the Rotherhithe to Canary Wharf pedestrian and cycle bridge, and the transformation of Oxford Street. We will also invest in the most modern transport technology to ensure the efficient use of the road network.

9.2.87 We manage London's traffic signals – around 6,000 in total. In our role operating the TLRN, one of the outcomes we seek through the use of signals is to improve journey time reliability by keeping traffic flowing as smoothly as possible from day-to-day, so road users experience predictable journey times. Of course, we need to balance this against the wider outcomes that we are seeking both pan-London and on a location-by-location basis, for example, by supporting walking and cycling. Smoother vehicular traffic, with less stopping, starting and idling also improves air quality by reducing emissions.

9.2.88 Further details on proposals to reduce overall levels of traffic and congestion are set out in the draft Mayor's Transport Strategy.

Silvertown Tunnel

9.2.89 Campaign for Better Transport, Friends of the Earth, Lambeth Green Party, London Cycling Campaign and Tower Hamlets Wheelers stated their opposition to the Silvertown Tunnel.

TfL response

9.2.90 As set out in the Environmental Statement and the updates to the Air Quality Assessment submitted by TfL throughout the current Development Consent Order (DCO) examination into the scheme, the Silvertown Tunnel results in an overall improvement in air quality at locations which are predicted to exceed the Air Quality Strategy (AQS) objectives in the opening year due to reductions in idling traffic.

Other emissions sources

9.2.91 Fitzrovia West Neighbourhood Forum, London Assembly Environment Committee, London Borough of Hounslow, London Borough of Islington, London First, Muswell Hill Sustainability Group and Road Haulage Association raised issues around non-road transport emissions sources.

9.2.92 All of the above stated that more work was needed to tackle non-road transport emission sources, including generators, heating, wood burning and refrigeration units.

TfL response

9.2.93 We are committed to reducing emissions across London. Further detail on these alternative measures, as well as detail on policies and proposals to reduce emissions (from both road transport and other emission sources) are set out in the draft Mayor's Transport Strategy and London Environment Strategy.

Other policy suggestions

9.2.94 The following 21 stakeholders made additional policy suggestions that do not fall into the categories listed above: Autogas, Better Bankside, Brewery Logistics Group, British Lung Foundation, Calor Gas, Caroline Russell AM, Climate Change Centre Reading, Confederation of British Industry London, Enfield Cycling Campaign, Enterprise Rent-A-Car, Environmental Services Association, European Network of Child Friendly Cities, Friends of the Earth, London Assembly Environment Committee – UKIP Group, London Assembly Environment Committee, London Association of Directors of Public Health and the London Environment Directors' Network (joint response), London Borough of Hounslow, London Cycling Campaign, London First, Motorcycle Action Group and Veolia.

9.2.95 British Lung Foundation stated that there should be increased air pollution monitoring around schools, care homes and hospitals.

9.2.96 London Cycling Campaign called for more Liveable Neighbourhoods.

9.2.97 London Cycling Campaign, London Association of Directors of Public Health and London Environment Directors' Network, called for an integrated strategy to reduce emissions overall, with the London Association of Directors of Public Health and London Environment Directors' Network raising the issues of minimising emissions from design through to construction.

9.2.98 ClientEarth and Friends of the Earth called for changes to Vehicle Excise Duty (VED) to stop the incentivisation of diesel. London Assembly Environment Committee and London Borough of Hounslow stated their support for powers to devolve VED to London, although the UKIP Group of the Environment Committee registered its opposition to this.

9.2.99 Brewery Logistics Group and Motorcycle Action Group stated that road humps should be removed.

9.2.100 Autogas and Calor Gas stated that more should be done to encourage the uptake of LPG and Environmental Services Association and Veolia stated that more should be done to encourage the uptake of compressed natural gas (CNG).

9.2.101 Caroline Russell AM and Enfield Cycling Campaign stated that the cleaner vehicle checker should contain a cigarette packet style health warning of vehicles.

9.2.102 Climate Change Centre Reading called for more car-free days.

9.2.103 Confederation of British Industry London requested that the Mayor work with government to ensure consistency across national air quality policy, especially with regard to Clean Air Zones.

9.2.104 Enterprise Rent-A-Car stated its support for action to encourage greater use of car clubs.

9.2.105 European Network of Child Friendly Cities stated there should be exclusion zones around schools for vehicles and that future design within the London Plan should ensure heavy traffic is managed away from schools and residential areas.

9.2.106 London Assembly Environment Committee – UKIP Group stated that more could be done to reduce immigration to reduce emissions.

9.2.107 London Councils supported increased use of green infrastructure.

9.2.108 Motorcycle Action Group stated that more should be done to encourage the use of powered two wheelers.

TfL response

9.2.109 With regards to an integrated strategy to reduce CO_2 and air pollution emissions this is set out in the draft LES, published on 11 August 2017.

9.2.110 With regards to monitoring London has one of the most comprehensive air quality monitoring networks in the world. Data from monitoring stations is available online.[21]TfL and the GLA work continually with boroughs to ensure that the air quality monitors are appropriately maintained and located. We will consider suggestions for more monitoring outside schools and other sensitive locations as part of a general review of air quality monitoring.

9.2.111 With regards to Liveable Neighbourhoods, as part of the draft MTS a new £85.9 million Liveable Neighbourhoods programme was launched in July, giving boroughs the opportunity to bid for funding for long-term schemes that encourage walking, cycling and the use of public transport, in line with the Mayor's Healthy Streets approach. The programme will provide projects with grants of between £1 million and £10 million. For further details about the Liveable Neighbourhoods programme see online at: https://tfl.gov.uk/info-for/boroughs/liveable-neighbourhoods.

9.2.112 With regards to VED we welcome stakeholder support for the devolution of VED to the Mayor. The Mayor continues to call on the Government to reduce the financial incentive to buy diesel vehicles and devolve VED to tackle the particular challenges faced in London, including air quality.

9.2.113 Data from monitoring stations is available online[22]. It is used to corroborate the modelling results of the London Atmospheric Emissions Inventory (LAEI)[23] and inform Londoners of days of poor air pollution. With regards to removal of road humps, this could compromise other priorities such as road safety and is unlikely to be effective at delivering the scale of pollution reductions we desperately need.

9.2.114 Our position on car-free days, powered two wheelers, Liveable Neighbourhoods and car clubs is set out in the draft Mayor's Transport Strategy.

9.2.115 We support green infrastructure on transport land as set out in the draft MTS and LES.

9.2.116 With regards to immigration, we believe it is necessary to sustainably accommodate population growth in London due to the benefits this will bring to the UK economy.

9.2.117 With regards to alternative fuels, fuels that demonstrate clear reductions in air pollutant and CO_2 emissions will be considered as a bridging technology on the path to zero emission by 2050.

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[21] https://www.londonair.org.uk/LondonAir/Default.aspx
[22] https://www.londonair.org.uk/LondonAir/Default.aspx
[23] https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory-2013

9.2.118 The cleaner vehicle checker has been launched and will provides ratings of vehicles based on their real world on-road NO_x emissions. It is available on the GLA website.[24]

9.3 Theme O: Consultation

9.3.1 The following five stakeholders raised issues in relation to this theme: Alliance of British Drivers, Ealing Friends of the Earth, London Borough of Hackney, Our Vauxhall and Road Haulage Association.

9.3.2 The Alliance of British Drivers stated that insufficient information had been provided to judge the merits of the proposals.

9.3.3 Ealing Friends of the Earth stated that the consultation focused in great detail on one small proposal rather than the wider air pollution picture.

9.3.4 Road Haulage Association stated that the consultation did not focus enough on the proposal to bring forward ULEZ in central London, that the 2013 emissions data was not a true reflection of the current position, and that all questions should provide space for additional comment. The association also disagreed with the analysis of emissions savings and compliance.

9.3.5 London Borough of Hackney stated that the consultation on expansion should have been conducted at the same time as the consultation on proposals to bring the ULEZ forward.

9.3.6 Our Vauxhall stated that the questions were leading.

TfL response

9.3.7 Detailed information about the proposals was made available online on our consultation portal (www.tfl.gov.uk/airquality-consultation). The extensive Consultation and information document could also be downloaded there. This necessarily focused on the proposals to bring forward the ULEZ in central London as the statutory consultation was on this subject.

9.3.8 We also responded to stakeholder requests for further information or clarification by emails, meetings and briefing sessions. This was to help stakeholders to formulate their responses to the consultation.

9.3.9 The LAEI 2013 is the most up to date inventory of all emissions sources in London. As well as a base year of 2013 the LAEI includes future year estimates of emissions in London up to 2030. As part of these projections

[24] https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/cleaning-londons-vehicles

we estimate the uptake of new vehicles. It is from this that are able to give an indication of emissions in 2019 with Euro 6 / VI having been taken up across all vehicle types. A projection of the emissions sources in 2019, reflecting increased usage of Euro VI, vehicles was provided in the Consultation and Information Document. All quoted reductions in NOx are reductions in comparison to the 2019 baseline rather than the 2013 data to ensure the only improvement captured is that brought about by the policy, rather than the natural churn of the vehicle fleet.

9.3.10 The compliance figure is a percentage by vehicle km driven within the ULEZ rather than the total fleet of HGVs operating in London. This figure is based on a model of likely behavioural responses to charge levels given frequency of entry. Purchase of new vehicles is not the only possible response to achieve compliance and there is likely to be re-allocation and retrofit of fleets as a result of the ULEZ.

9.3.11 Although there were many closed questions on the proposals, the final question in the questionnaire was a comments box in which respondents could write any comments of their own on the proposals. Alternatively, respondents, including stakeholders, could email or write to us and, as set out in Chapter 8; more than half of stakeholders emailed us rather than used the consultation portal. There was therefore sufficient opportunity to comment outside (or in addition to) the questions in the questionnaire and to ask for further clarification.

9.3.12 The decision was made to provide an earlier consultation on proposals to bring forward the start date in central London in order to maximise the notice period for affected vehicle owners and operators.

10. Operational issues not raised in consultation

10.1.1 Some issues have arisen following further exploration of options for delivery of the ULEZ scheme at best value. These will not affect the proposals or impacts, but require require minor changes to the VO.

10.2 Methods of Payment

10.2.1 The VO specifies the payment channels that TfL will accept daily, weekly, monthly and annual payments from, including a new proposal to accept App based payments for all periods.

10.2.2 Whilst we will be accepting App based payments in future, our service provider has advised us that there are issues with authorising very high value transactions via this channel. It would not be desirable to accept a payment of £36,500 for an annual ULEZ charge for a heavy vehicle via the App, for instance.

10.2.3 Furthermore, listing the specific payment channels and the payments that can be made through each channel in the VO means that a formal modification would be required in order to make future changes to payment channels, limiting the flexibility for TfL to make operational changes (such as introducing new payment technology).

10.2.4 We are proposing that the specifics of the payment channels listed in the VO are simplified to ensure TfL has greater flexibility in introducing new mechanisms for payment and to ensure that TfL are not required to accept very high payment amounts through inappropriate means. The Scheme Order will state that TfL may accept payment via post, call centre, App, on-line, Auto Pay or other means and that details will be specified on its web-site.

10.3 Advanced payments

10.3.1 The VO states that advance payments can be accepted up to 64 working days prior to travel.

10.3.2 In order to ensure that appropriate systems development and testing can take place prior to implementation at best value for money we are recommending that advance payments are only required to be available from the launch date of the scheme.

11. Conclusions and recommendations

11.1.1 We recommend that the Mayor should consider the whole of this report and other relevant information available to him, including advice from GLA officers, the contents of the Integrated Impact Assessment, the responses to the consultation, together with our considerations, particularly with relation to Chapters 5, 8 and 10 of this report, and then consider whether further consultation, further information or the holding of some form of inquiry is necessary or appropriate prior to his decision to confirm or not confirm the VO. If the Mayor considers that no further consultation or the holding of a public inquiry is necessary or appropriate, the VO would be confirmed with the modification as described above.

11.1.2 The consultation indicated that there is strong support for the earlier implementation of the ULEZ with 63 per cent of the respondents either supporting or strongly supporting the proposal.

11.1.3 The consultation indicated moderate levels of support for the proposal to maintain a three-year sunset period for residents, with 28 per cent supporting the proposal, 19 per cent believing it should be longer and 45 per cent wishing for a shorter or no sunset period. Among residents of the CCZ, there was little overall difference in the percentages with 30 per cent favouring the proposal as consulted, 20 per cent requesting a longer sunset period, and 45 per cent indicating their preference for a reduced or no sunset period.

11.1.4 There was support for the proposal to maintain a 4.5 year sunset period for disabled vehicles with 37 per cent in favour, compared to 32 per cent who wanted a shorter or no sunset period, and 19 per cent who wanted a longer period.

11.1.5 There was significant support for the inclusion of a PM standard, with 69 per cent supporting or strongly supporting this proposal.

11.1.6 We have considered and responded to the issues raised in relation to the ULEZ as outlined in Chapter 8 and Chapter 10. In view of these we propose the following amendments to the VO:

- Amendment to wording around which methods of payment will be accepted. The wording will be less specific to allow flexibility to introduce new methods of payment in the future.
- Amending the transitional provisions so that advance payments are only required to be accepted from the launch date of the ULEZ.
- Changing the standard for TfL buses from a Euro V emitting <2.05 g/km of NOx to a Euro VI standard in line with other heavy vehicles.

11.1.7 We consider that our published proposals strike the correct balance in terms of reducing NO_x emissions, without placing undue burden on Londoners.

11.1.8 Therefore, we recommend that the Mayor confirms the VO with the modifications described above. No further modifications are proposed.

11.1.9 If the Mayor decides to confirm the VO (with the proposed modifications), the changes would come into effect as follows:

- From 8 April 2019, relevant vehicles will need to meet emissions standard of Euro 4 NO_x for petrol or Euro 6/VI NO_x and PM for diesel or pay a daily charge to enter the ULEZ, which will have the same boundary as the Congestion Charging zone
- From 4 April 2022 residents will be liable for the ULEZ

11.1.10 We recommend that the Mayor confirms the ULEZ VO with the modifications above. However, the Mayor is at liberty to decide not to confirm the VO at all or to consider doing so with or without modifications if he judges that appropriate.