

Directorate: Resources & Housing	Service area: Sustainable Energy & Air Quality (SEAQ)
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Date of the equality, diversity, cohesion and integration impact assessment: 27/08/2019	
1. Title: Clean Air Zone – Final submission	
Is this a:	
<input checked="" type="checkbox"/> Strategy /Policy	<input type="checkbox"/> Service / Function
<input type="checkbox"/> Other	
If other, please specify	
Stakeholders	
<input checked="" type="checkbox"/> Services users	<input type="checkbox"/> Employees
<input checked="" type="checkbox"/> Partners	<input type="checkbox"/> Trade Unions
<input type="checkbox"/> Other please specify	<input type="checkbox"/> Members
	<input type="checkbox"/> Suppliers
Potential barriers.	
<input type="checkbox"/> Built environment	<input type="checkbox"/> Location of premises and services
<input checked="" type="checkbox"/> Information & Communication	<input type="checkbox"/> Customer care
<input checked="" type="checkbox"/> Timing	<input type="checkbox"/> Stereotypes and assumptions
<input type="checkbox"/> Cost	<input checked="" type="checkbox"/> Consultation and involvement
<input checked="" type="checkbox"/> Financial exclusion	<input type="checkbox"/> Employment and training
<input type="checkbox"/> specific barriers to the strategy, policy, services or function	
Please specify	

This document is a supporting document (Appendix 2) of the Executive Board report titled Improving 'Air Quality in the City – CAZ update' published in September 2019.

The Council submitted Executive Board reports in December 2017, June 2018 and November 2018 which were each accompanied by Equality Impact Assessments (EIA). This final EDCI is supplementary to previous EIAs, introducing new information from the statutory consultation and address any policy changes that have occurred since November 2018.

1. What we assessed

Background

Leeds has been named as one of the cities in the UK that will not be compliant with the mean annual average emission levels of nitrogen dioxide (NO₂) required by regulations by 2020, in line with EU air quality minimum requirements. As a result, Leeds City Council is required to implement a solution to achieve compliance with EU & National air quality targets within the shortest possible timescale to deliver improvements to air quality in Leeds, consistent with other legal responsibilities. Whilst the need to achieve compliance is a legal requirement, Leeds recognise and are committed to improving the health and wellbeing of everyone in the city and taking appropriate steps to reduce pollution improves air quality and benefits us all.

The CAZ will improve public health by addressing the issue of air quality in the city. Both long- and short-term exposure to air pollution are known to adversely affect health. Short-term exposure (over hours or days) to elevated levels of air pollution can cause a range of negative effects including exacerbation of asthma, effects on lung function, increases in hospital admissions and mortality. Epidemiological studies have shown that long-term exposure (over several years) reduces life-expectancy, mainly due to increased risk of mortality from cardiovascular and respiratory causes and from lung cancer.¹

Exposure to air pollutants has been linked to adverse health effects. On average air pollution reduces life expectancy of every resident in the UK by 7-8 months². Public Health England modelled that 29,000 deaths and 307,000 lost life years³ are attributed to annually to Particulate Matter (PM)_{2.5} and NO₂⁴. In Leeds PM is not a factor in terms of non-compliance, we already meet the requirements standards and are close to meeting the higher standard set by the World Health Organisation (WHO) for PM_{2.5}; the focus for Leeds is NO₂ reductions. However, improvement beyond compliance will continue to deliver further health benefits.

¹ National Institute for Health and Care Excellence (NICE) - Expert testimony from Public Health England to inform NICE 'Air pollution: outdoor air quality and health' guideline 2017 <https://www.nice.org.uk/guidance/ng70>

² H. Brunt, et al – Air pollution, deprivation and health: understanding the relationships to add value to local air quality management policy and practice in Wales, UK, 2016

³ Public Health England - Estimating Local Mortality Burdens associated with Particulate Air Pollution, 2014

⁴ Particulate Matter and Nitrogen dioxide

In September 2018, Leeds proposed the implementation of a Clean Air Charging Zone (CAZ) Category B across a part of the city's geographical area to meet air quality national standards in the shortest possible timescales and improve the air quality for the whole city. This option would require buses, coaches, Heavy Goods Vehicles (HGVs), and taxi/private hire (T/PH) vehicles to comply with pre-determined emission standards or pay a daily charge if they travel in the zone. The final CAZ proposal was approved by Executive Board on 18 October 2018.

On 21 November 2018 the Council approved the making of the Leeds Clean Air Zone Charging Order (adopted on 19th December 2018), with an accompanying EDCI impact assessment. Since this date, a number of policy changes have arisen which are reflected in the content of this EDCI assessment. On 11 December 2018 the Council submitted its Full Business Case to Government for the Leeds Clean Air Charging Zone which was subsequently approved on 18 January 2019 with £29 million funding awarded in total. The breakdown is as follows:

Infrastructure	£6m
HGV sector	£11.3m (+ £2.5m stretch fund)
Non-scheduled buses and coaches	£2m
Taxi and Private Hire	£4.7m (+ £2.5m stretch fund)

Charging Clean Air Zone – Category, Vehicles Impacted

The Council will be implementing a Clean Air Charging Zone (CAZ) Category B. This option would require buses, coaches, Heavy Goods Vehicles (HGVs), and taxi/private hire (T/PH) vehicles to comply with pre-determined emission standards (Euro 6 diesel/Euro 4 petrol) or pay a daily charge if they travel in the zone. T/PH vehicles that are not powered by petrol-hybrid, liquefied petroleum gas (LPG) or fully electric will be chargeable within the CAZ.

Category	Proposed charge
Buses, coaches & HGVs	£50 per day
Taxi & Private Hire Vehicles	£12.50 per day (non-Leeds licensed drivers) £12.50 per day or £50 per week (Leeds licensed drivers only)

Paying for CAZ Charges

Central Government are developing a national payment portal (NPP) to allow users to make payments online for any CAZ. These payments should be made only when a vehicle is in contravention of Leeds' CAZ vehicle emission standards and is not in receipt of any local or national exemptions. The NPP is an online website, carefully designed to make checking vehicle compliance and making a payment as simple as possible. This online payment route will be the only method of making a payment for the Leeds CAZ, this is also the case for the Birmingham CAZ – the only other CAZ being confirmed to be implemented in 2020. Users will be able to pay:

- In advance
 - o Users can pay up to 7 days in advance of CAZ entry
- Retrospectively
 - o Users can pay up to midnight the following working day after CAZ entry

A decision has been made to not provide an alternative payment option (e.g, telephone, Paypoint) due to the standard of CAZ that Leeds City Council is implementing. A CAZ B impacts upon the bus, coach, HGV, taxi and private hire sectors. The majority of these business sectors uses basic digital skills to manage their operations, and as such making payment via the NPP is expected to be of similar complexity. As a result, there is no requirement for Leeds City Council to provide '*assisted digital*' options for CAZ payment. Central government intend to implement a central contact point for all queries relating to CAZs. There will be guidance available for those who have queries regarding making a payment online and calls will be triaged where appropriate, in some instances cases may be referred to the Council to resolve.

Mitigation of Economic Impact

For each impacted category of vehicles there is a package of support measures in order to mitigate the economic impact of the CAZ and assist companies in making the transition to cleaner, less polluting, CAZ compliant vehicles. These support measures take the form of financial support to transition to cleaner vehicles, or locally decided exemptions from CAZ charges for a temporary, fixed, or permanent duration. The volume of funding available is detailed below

Vehicle category	Funding pot	Funding mechanisms
HGV sector	£11.3m (+ £2.5m stretch fund)	£16,000 grant for a replacement vehicle/retrofit

		3 rounds of funding with maximum of 5 vehicles per round
		£1.2m allocated for specialist HGVs – up to 5 vehicles per company
Non-scheduled buses and coaches	£2m	£16,000 grant for a replacement vehicle/retrofit 2 rounds of funding with maximum of 10 vehicles per round
Taxi and Private Hire	£4.7m (+ £2.5m stretch fund) £700k early measures	£10,000 interest-free loan (2072 loans available) £1,500 grant to replace/retrofit vehicle (466 grants available)

Local Exemptions

The below table lists the locally derived exemptions available. For each exemption to be valid, a range of criteria must be met, with some criteria requiring a manual application to be submitted to the Council by the owner of the vehicle.

Exemption Title	End of exemption
Euro 6 diesel T&PH vehicle licenced pre 17/10/2018	31/12/2021
Euro 6 Executive taxi/private hire	31/12/2021
WAV T&PH	31/12/2027
Class M2 vehicles	31/12/2021
A taxi or private hire vehicle subject to finance agreement – licenced prior to 18/10/2018	Date that purchase is completed or 31/12/21 whichever is earliest.
Showman's vehicles	Permanent

Heavy vehicle for which replacement or retrofit vehicle has been ordered	Date of vehicle replacement/retrofit installation or 31/12/20. Whichever is soonest
Vintage buses	Permanent
School buses meeting Euro IV, V or VI diesel emission standard	Permanent
Community minibuses	Permanent
Diverted vehicles	Permanent
New Exemptions	
Specialist Heavy Goods Vehicle exemption	Permanent
8 passenger T&PH vehicles	Permanent

Prior to the Improving Air Quality September 2019 Executive Board, it was proposed that these exemptions should solely apply to drivers/vehicles licenced with Leeds City Council. Following a statutory consultation on the specific topic of taxi & private hire and specialist vehicles in the CAZ, this Executive Board proposed an amendment to the CAZ Charging Order to extend all exemptions to 'out of town' drivers – those who are licenced with authorities other than Leeds City Council. As a result of this amendment, there is a benefit to a wider group, mitigating against the impact of CAZ implementation and ensuring there is equity in the use of measures to support affected sectors for drivers licenced with Leeds City Council and other authorities.

2. Consultation with possible impacted groups

Background

Since January 2018 we have held three consultations with the people that live, work or visit Leeds. This included:

- An initial consultation on the Council's outline CAZ proposal between 2nd January – 2nd March 2018
- A statutory consultation on the preferred CAZ solution which took place between 28th June – 12th August 2018
- Further statutory consultation on T&PH and specialist vehicle exemptions between 17th July – 26th August 2019

During the aforementioned consultations we carried out an online survey as well as holding face to face meetings with companies, trade organisations and events targeted at the business sectors that could be directly impacted. This included

sessions held for the HGV sector, T/PH, bus and coach businesses⁵. We also held public events in the city that were open to all.

Through the initial and statutory consultation on preferred CAZ approach we also raised awareness of the survey questionnaire by advertising throughout the city with postcards to every household and business in Leeds, over social media, in our community hubs, libraries and one stop shops. A dedicated email contact was offered for anyone wishing to ask specific questions regarding the proposals.

Engagement was also undertaken with children and young people through a schools specific questionnaire during the initial consultation, awareness raising through the Learning Improvement Service and Headteachers Forum. The Leeds Youth Council were also consulted on all the proposals during both the initial and statutory consultations.

Initial Consultation

We had our highest response to any consultation in the city with over 8,500 responses to the first CAZ consultation. Even with this high number of responses, analysis of the results showed that there was under representation of the businesses that could be impacted if the CAZ was approved. However, the qualitative work undertaken with the business sector through events, meetings and working with the trade or representative organisations provided a strong understanding of the views of this sector. The questionnaire analysis also showed that there was an under representation in the respondents of some of the key equality characteristics such as gender, ethnicity, disabled and certain age groups.

Equality characteristic	Response %	Leeds census %	Difference %
Age 18 – 29	13	27	14
Age 65 +	15	18	3
Gender – Female	37	51	14
Disabled	7	17	10
Ethnicity group Asian	5	8	3

Phase one consultation gaps⁶

The outcomes of this first consultation required the Council to revisit the proposed CAZ solution and determine a preferred CAZ solution.

Statutory consultation

The statutory consultation was open from 28th June – 12th August 2018. Engagement methods were reviewed to try to encourage those that were under represented in the first consultation to take part. The consultation was open to replies from both within

⁵ Further details can be found in Executive Board report appendix A.

⁶ Only shown gaps that relate to EIA

and outside the district. When we again held consultation events for the impacted sectors we made sure that we removed barriers such as language by providing translators at T/PH events because English is not the first language for a large proportion of those engaged in this sector. This translation service had only minimal use throughout the duration of the consultation. Leaflets were handed out at taxi ranks in the city centre to ensure T/PH drivers would be aware of the consultation events targeted specifically at their sector and included information in Urdu and Punjabi, having identified from demographic data and consultation with voluntary sector groups, working with the relevant communities, that Urdu and Punjabi would be the most appropriate languages to include in written and spoken communications with T/PH drivers.

The Council has Equality Hubs which are based on the Equality Act 2010 protected characteristics of Lesbian Gay Bisexual and Trans (LGBT+), age, women, disability and religion/belief in Leeds. We asked the Hubs to distribute the survey to their members. The Hubs help ensure Leeds City Council is engaging with and involving the full range of citizens that live in Leeds in the consultation process and decisions it makes. We provided the consultation questionnaire in large font, audio cd, braille and paper on request.

As with the first consultation we had many interactions with Leeds residents at the events that were held throughout the city and we held more targeted events and meeting to engage with the potentially impacted sectors. Full information on the survey results can be found in Appendix 1 of the September 2019 Executive Board report.⁷

The awareness of the second statutory consultation for the amendment of the CAZ Charging Order in July 2019 was raised through a communications plan which included the following:

- Pop-up content on the HGV and Exemptions page of the CAZ website that clicks through to the consultation (if webmaster permits)
- A message sent through Yortender to everyone who has registered interest in the Large Vehicle grant schemes
- Organic social media posts via the trade associations
- Public-facing events with specialist vehicle operators
- Content in trade organisation newsletters and bulletins including the RHA, FTA
- An email to everyone on the master list identified as being a HGV operator or who has registered for HGV updates
- Physical letters to 1k+ mail addresses identified using O license data

⁷ Link to appendices

Taxi/private hire & specialist large vehicles statutory consultation

The third public consultation, held for six weeks from 17th July – 26th August 2019 available via an online survey garnered 526 responses. This consultation targeted Taxi and Private Hire Operators and Specialist Vehicles (HGV) Operators for their input regarding the amendment of the Clean Air Zone Charging Order in respect of the qualifying criteria for a specialist vehicle and the extension of sunset period(s) and the future emissions standards for Taxi and Private Hire Vehicle Operators. There was also an opportunity to meet with a Council officer at a face-to-face event within the six week consultation period. Both Specialist Vehicle Operators and Taxi and Private Hire Operators were targeted due to their ability to be directly impacted by any proposed changes to the now approved and soon-to-be implemented CAZ.

Specialist vehicles

The proposed Qualifying Criteria for the Specialist Heavy Goods Vehicle exemption is:

- A Specialist Heavy Goods Vehicle that cannot be retrofitted to meet CAZ compliant standards
- Costs in excess of £200,000 to replace
- Operates for no more than three hours per working day
- Tax class N2 or N3
- Body type Low loader / Breakdown Truck / Special purpose

Businesses that meet the Qualifying Criteria can apply for an exemption using the online application process on the Council's website.

The Council acknowledges there will be some businesses that have been waiting for the outcome of this consultation exercise before taking action. To assist these businesses that Council is opening up a small funding competition to allow for grant applications. The fund available is £1.2m which will fund 75 grants for specialist HGVs that meet the above criteria.

Taxi & Private Hire

The consultation sought feedback on the following:

- Extending the existing exemptions (sunset periods) to out of town taxi and private hire vehicles.
- The year in which the future emissions standard (zero emission) should be introduced for the taxi and private hire sector.
- The year in which the future emissions standard (zero emission) should be introduced for the WAV cohort of taxi and private hire sector.
- Extending the existing WAV exemption (sunset period) to align with the future emissions standard date.
- Introduction of a new sunset period / temporary exemption when the future emissions standard is implemented for vehicles that are currently licensed or become licensed within 12 months of the CAZ go-live and meet the existing

CAZ compliant emissions standards, until the vehicle needs to be replaced to meet taxi licensing standards

Respondents were in favour of:

- Extending all existing sunset periods / temporary exemptions to Out of Town taxi and private hire drivers.
- Implementing the future emissions standard in year 2028
- Extending the existing WAV sunset period to 2028 to align with the future emissions standard
- Introducing a new sunset period for vehicles that are currently licensed or become licensed within 12 months of the CAZ go-live and meet the existing CAZ compliant emissions standards, until the vehicle needs to be replaced to meet taxi licensing standards.

This feedback will be utilised in the first annual review of the CAZ.

The rest of this document will look at the positive and negative impacts on the protected characteristics and other areas that could be impacted by the introduction of a CAZ in Leeds.

3. Age

Leeds has an estimated population of almost 787,000 across 331,000 household making it the third largest city in the UK. Recent population projections show that Leeds is projected to increase to just over 826,000 by 2026. The biggest projected increases are in the age bands 15 and below and 65 and above. Both these groups have been shown to be particularly vulnerable to poor air quality as well as pregnant women and those who have chronic conditions⁸.

Leeds projected population increase 2017-2027				
Age band	2017	2027	% increase	Number increase
All Ages	786,846	826,332	5.0%	39,486
Aged 0 to 15	150,830	161,947	7.3%	11,117
Aged 16 to 64	513,941	526,090	2.3%	12,149
Aged 65+	121,398	138,511	14.0%	17,113

ONS 2016

The age groups are spread throughout the city and certain areas may have higher concentrations of a certain group but the modelling has shown that even though the

⁸ Royal College of Physicians – Every breath we take; The lifelong impact of air pollution, 2016

proposed CAZ defined boundary only covers a proportion of the city, the air quality improvements will be felt throughout the city.

There is an increased reliance on public transport amongst children, young people, and the elderly. These groups use the bus fleet to travel throughout the city, and in many areas this is the only means of public transport available. A decline in the number or frequency of services available as a result of CAZ charges would therefore impact upon this group. To mitigate against this, the Council has worked together with the West Yorkshire Combined Authority to bid for £3m Clean Bus Transport Fund to assist the providers of scheduled buses to upgrade or retrofit their vehicles to meet CAZ standards. This financial assistance is expected to mitigate the risk of bus companies reducing services.

To ensure that school-related travel by children and young people is not negatively impacted by the CAZ, and an enriched curriculum with specific activities to tackle childhood obesity and activity levels can be maintained, buses/coaches operated by or on behalf of a school for the purpose of transporting Leeds school pupils will be exempt providing the vehicle meets Euro IV, V or VI diesel emission standards. Grants of up to £16,000 have been made available for operators of non-scheduled buses or coaches to retrofit/replace their vehicles with a CAZ compliant vehicle. The intention of this grant scheme is to ensure that support was available to make the school bus/coach fleet stock as 'clean' as possible.

Leeds City Council is implementing a range of projects/programmes in addition to the CAZ to improve the air quality. Scoot to school is one of these initiatives which is providing a holistic air quality/scooter training initiative at 30 schools in Leeds so they can use that instead of travelling by car to school, appreciate the impact of air quality on health, and educate both the children and parents on the advantages of not using the car for the school run. This initiative is targeted at schools where there is a high number of vehicles used for the school run.

Another strand of the work to improve air quality in the city is the creation of anti-idling zones which will be in place around schools and taxi ranks in the first instance to help improve the air quality. Vehicles stopped or parked will need to switch off their engines so reducing emissions and improving air quality in these locations.

Children in each school have been involved in the publicising of the anti-idling zones with each school holding a competition to design a poster that will go up around their school and educating both parents, local drivers and children on the impact of idling on the air quality and subsequent negative impact on health.

The implementation of a CAZ category B will impact upon operators of buses, coaches, HGVs, and taxi & private hire vehicles. The Data on age demography from the Labour Force Survey (Q2 2016) revealed that over 64% of large goods vehicle drivers are 45 years or older⁹. This is vastly different to the economy-wide

⁹ Source: Quarterly Labour Force Survey, Q2 2016

demographics, where the population aged 45 years or older in employment was found to be around 50%. Only 2% of employed drivers are under 25, whereas over 10% of the total employed population is under 25. The implementation of the CAZ will have a greater impact on workers closer to retirement. This impact is being mitigated through the availability of grants to replace/retrofit existing non-compliant vehicles. A market capacity exemption has also been implemented to ensure that owners of non-compliant vehicles that have arranged for a compliant replacement/retrofit which cannot occur prior to go-live due to market capacity issues have a temporary exemption until 31/12/2021 or the date of vehicle replacement/retrofit.

4. Carers

No direct impact. The implementation of a CAZ B does not impact upon private car owners, light goods vehicles or minibuses. These are the vehicles used by carers.

5. Disabled

Being disabled covers a wide range of people. This includes people with mental health conditions and those who are physically disabled. Some disabled people will have chronic conditions which can be impacted by air pollution. We know from the most recent census available in 2011 that 17% of the population stated that their day-to-day activities were limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months.

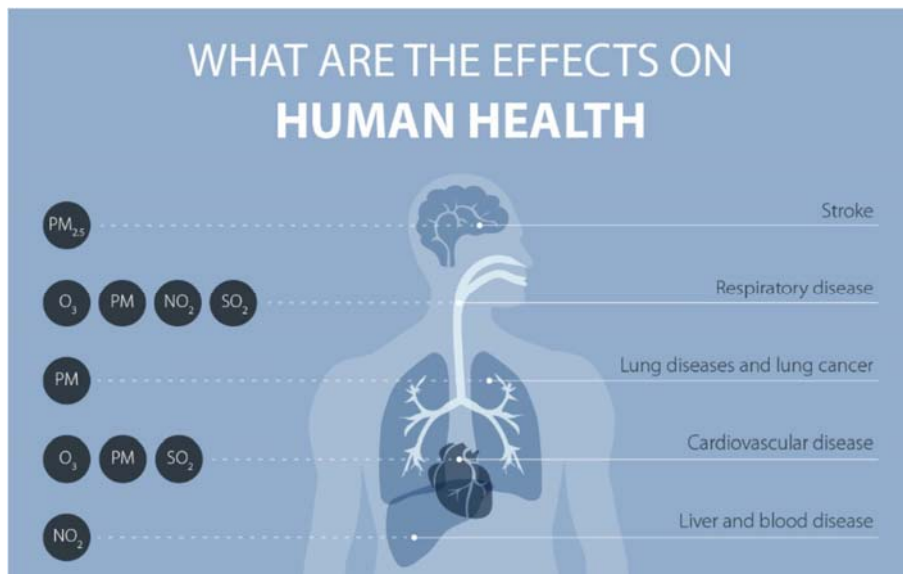
The European Environment Agency recently said:

“Air pollution is the single largest environmental health risk in Europe and the disease burden resulting from air pollution is substantial (Lim et al., 2012; WHO, 2014). Heart disease and stroke are the most common reasons for premature death attributable to air pollution and are responsible for 80 % of cases; lung diseases and lung cancer follow (WHO, 2014). In addition to causing premature death, air pollution increases the incidence of a wide range of diseases (e.g. respiratory and cardiovascular diseases and cancer), with both long- and short-term health effects, including at levels below the existing WHO guideline values (WHO, 2016a, and references therein). The International Agency for Research on Cancer has classified air pollution in general, as well as PM¹⁰ as a separate component of air pollution mixtures, as carcinogenic (IARC, 2013).”¹¹

¹⁰ Particulate Matter

¹¹ Air quality in Europe — 2017 report

Below is a graphic that shows that all the broad types of chronic conditions that are impacted by poor air quality.



Source EEA¹²

By improving air quality we could improve the instances of some of the most common conditions that are impacted by PM_{2.5}, PM₁₀ and NO₂.

In Leeds as an example below this many people have the following conditions:

Type of disease	No. of people	% of Leeds population
Chronic heart disease	25557	2.90
Stroke/TIA*	14532	1.65
COPD**	17307	1.97
Asthma	93175	10.58

Data from GP practice systems in Leeds collected from the CCG Data Extraction Programme, 2018

*transient ischemic attack, ** Chronic Obstructive Pulmonary Disease

There has been lots of research into the impact of air pollution on health and this area is being prioritised across the world. In the UK, the Chief Medical Officer used her latest annual report to talk about the health impacts of all pollution and it shows that more research needs to be done to make sure we learn as much as we can to counter this public health risk.¹³

Charging T/PH drivers may have had an impact on the availability of wheelchair accessible vehicle (WAV) and an increase in fares. To mitigate these impacts we put in place an exemption for all WAV T/PH vehicles until 31/12/2021. Following the third

¹² EEA, Air quality in Europe — 2017 report

¹³ Annual report of the Chief Medical Officer 217 Health Impacts of All Pollution

consultation phase, it is proposed to extend this exemption to 31/12/2027 (linked to future reviews of the CAZ emissions standard). It is important to recognise that there a range of disabilities, not all of which would require the use of a T/PH WAV. To reduce the risk of any charges being passed on disproportionately to disabled users support measures are available to all Leeds T/PH drivers to make the transition to cleaner vehicles. These support measures are grants, interest free loans, and temporary or permanent exemptions as detailed in Section 1: What We Assessed.

6. Gender reassignment

No direct impact.

7. Race

When it comes to race we know that poor air quality has an impact on some of the health conditions that are more prevalent in minority ethnic groups. When we last collected equality data from the T/PH drivers as part of the licensing process we had 55% of the forms that had ethnicity data completed and it showed that 69% of drivers had identified themselves as British Pakistani/Kashmiri.

As part of the proposed CAZ we have asked that T/PH vehicles meet a higher standard than is set out in the national CAZ Framework.

There is a financial impact to this group but we are mitigating this by:

- offering interest free loans to enable the purchase of compliant vehicles
- transition grant to support the cost of switching to a new vehicle
- LPG conversion grant which enables petrol vehicles to be converted to LPG.
- Relaxation of the age at which a ULEV can be first licensed
 - The council's conditions for the age of a vehicle when it can first be licenced have been relaxed for ULEVs. A vehicle will only be accepted for licensing if the date of first registration is less than 7 years (previously 5) and a milometer showing fewer than 120,000 miles for electric, petrol hybrid and LPG vehicles.
- Relaxation of the age at which a ULEV can last be licensed
 - Ultra low emission vehicles (electric, petrol hybrid or LPG) may also be licensed up to 12 years of age, following an age extension inspection.
- Local exemptions – several exemptions are available for T&PH drivers/operators to mitigate against impact of the CAZ

We already know from the equality monitoring data for T/PH licensees that the majority of drivers have a South Asian heritage and they have a higher prevalence of

certain diseases that can be impacted by poor air quality such as heart disease and stroke.¹⁴ Research¹⁵ is showing that emissions from exhaust fumes carried by ventilation system in motor vehicles are a significant source of air pollution. This is reflected in recently published research by Kings College London that has shown that diesel black cab drivers are exposed to nearly twice as much pollution as those driving an electric model^{12b}. Reducing the number of non-compliant T&PH vehicles will provide an improvement to driver health. Queueing in taxi ranks results in the ingestion of emissions from other T&PH vehicles – this is less likely to occur following a fleet transition to cleaner vehicles.

8. Religion

No direct or indirect impact.

9. Gender

We know from the latest data from the Department for Transport¹⁶ that women use taxis more often than men but because of the support packages that we are proposing there should be no negative impact.

The World Health Organisation (WHO)¹⁷ has shown that air pollution has been linked to health impact on fertility, pregnancy. These include negative effects on neural development and cognitive capacities which can continue to have an impact in later life. Improving air quality with the introduction of the CAZ and the other measures to improve air quality will benefit pregnant women.

The implementation of the CAZ will impact on owners of non-compliant vehicles. The implementation of the Leeds CAZ B will impact on owners of HGVs, buses, coaches, taxi & private hire vehicles. Each of these sectors is very male-dominated, for example more than 99% of large goods vehicle drivers are male¹⁸. The support packages put in place as previously detailed will help to mitigate the impact on affected parties.

10. Sexual Orientation

¹⁴ <https://www.bhf.org.uk/information-support/support/your-ethnicity-and-heart-disease>

¹⁵ Bin Xu, Xiaokai Chen and Jianyin Xiong - Air quality inside motor vehicles' cabins: A Review, 2016

^{12b} Research funded by the Institute of Occupational Safety and Health and LEVC

¹⁶ Department for Transport, Taxi and Private Hire Vehicles Statistics: England 2017

¹⁷ WHO, Regional office for Europe – Review of evidence on health aspects of air pollution, 2013

¹⁸ ONS Q4 2017 Labour Force Survey

No direct impact.

11. Economic disadvantage

We are offering support packages for all three sectors to mitigate any economic disadvantage that could be caused by the introduction of the CAZ.

Support packages (subject to Government funding) vary by sector but include access to interest free loans (T/PH), grants to support the transition to cleaner vehicles (T/PH, HGV, buses & coaches), weekly charge rates for Leeds based T/PH only, financial support for adding accredited retrofit technologies to vehicles (HGV, buses & coaches).

With the range of support measures it is expected that the number of vehicles needing to pay daily charges will be reduced so mitigating economic impact and supporting local businesses.

The revenue generated by the CAZ will be used to cover the costs of running the scheme in the first instance. Net proceeds will be used to implement further clean air measures in line with the requirements of the national clean air framework. The high level spending objectives for these net proceeds include mitigating economic impact to vehicles incurring the charge by offering support packages to upgrade and retrofit their vehicles and support the upgrade/retrofit of vehicles that have either been exempted or provided a sunset period.

Support and mitigation will be offered to businesses in Leeds impacted by the CAZ through the administration of Government Clean Air Fund (CAF) grant money as well as through appropriate local exemptions.

It is expected that even where a non-compliant vehicle is driven and charged within the zone in many instances the cost of the daily charge will be spread across multiple commercial sites or users. In the case of multi-drop deliveries for example the one £50 would be 'shared' by all those receiving goods so reducing the pass on costs. Similarly a coach trip with over 50 passengers would see a price increase of less than £1 per person.

CAZ Payment Policy

The payment window available for users to pay a CAZ entry charge is:

- Pay 7 days in advance or by midnight the following working day after CAZ entry

Throughout the initial and statutory CAZ consultations, it was proposed that the retrospective payment window would be 'pay by midnight the following day after CAZ entry'. This payment window has been extended to be to 'the following working day'.

The intention of this extension is to ensure that businesses have sufficient time following entry to the CAZ to make a payment, taking into account the traditional non-working days of Saturday & Sunday.

The introduction of an extended retrospective payment window is an economic advantage for impact businesses as it provides a longer window to ensure payment for journeys is made, and the avoidance of a Penalty Charge Notice being issued.

More detailed information on the economic impact can be found in the Final Business Case¹⁹.

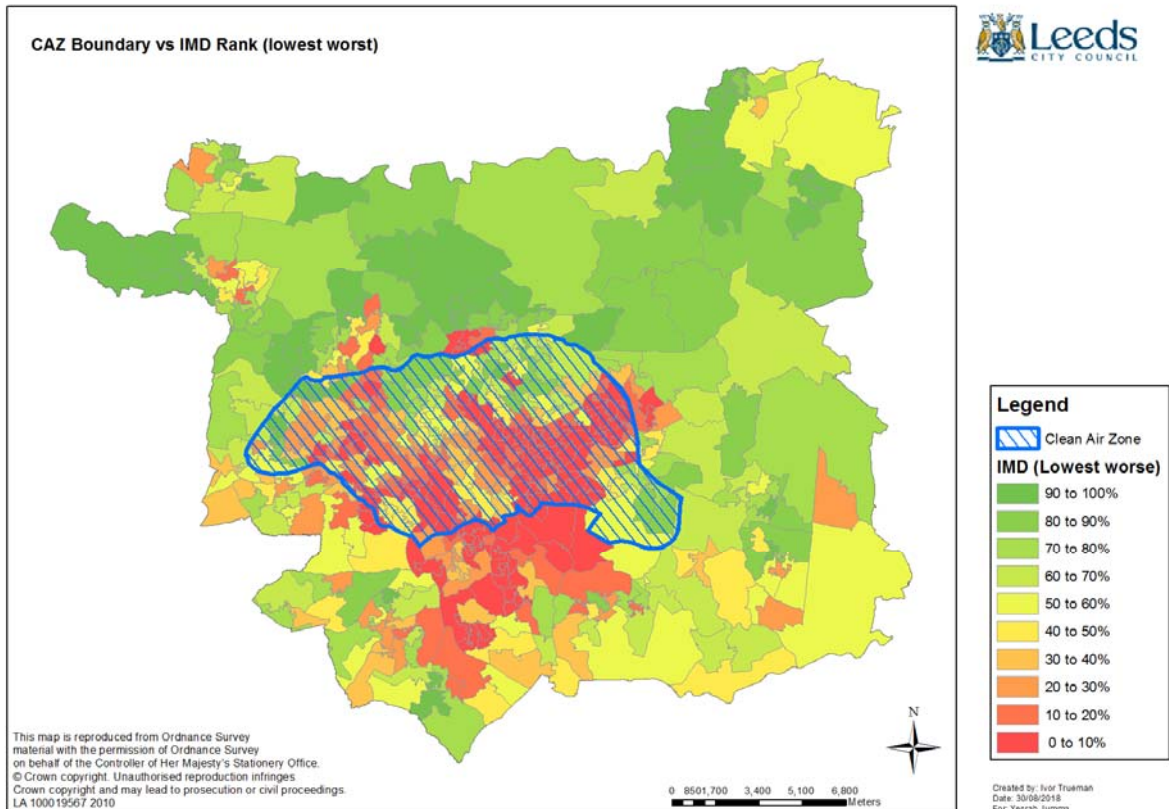
12. Deprivation

The government's Indices of Deprivation (IoD) 2010 are the official measure of deprivation in England. Data from the Index of Multiple Deprivation (IMD) indicates that over 150,000 people in Leeds live in areas that are ranked amongst the most deprived 10% nationally. The health of people in Leeds is generally worse than the England average, which is strongly associated with the high levels of deprivation experienced by the 150,000 people in Leeds who are living in areas ranked amongst the most deprived 10% nationally.²⁰ There are significant health and wellbeing inequalities across Leeds with the gap in life expectancy between the most and least deprived in the city of over 10 year. One of the key priorities in our Best Council Plan is reducing the health inequalities and improving the health of the poorest fastest.

Below is a map of the city which shows the areas are the most deprived in Leeds in red.

¹⁹ Final business case : Economic case

²⁰ LCC – Deprivation, Deprivation <https://democracy.leeds.gov.uk/documents/s62979/appendix>



A recent study has shown that deprivation and health are inextricably linked²¹. The CAZ will positively improve the air quality which is disproportionately experienced by the most deprived areas of the city. As a result of the CAZ, there will be a much greater proportion of compliant vehicles travelling throughout Leeds, including those which travel into the zone and through communities surrounding the boundary. This will, in turn, deliver air quality improvements beyond the zone itself including in deprived neighbourhoods of Leeds external of the Zone. In addition to this, the new reduced boundary has been carefully considered to ensure that it will not create significant displacement of traffic, which would bring emissions to other areas. Our modelling supports this future decrease in emissions throughout the city, not only in the charging zone but beyond it. Finally, there was an economic case to consider for the amended boundary which will minimise the financial impact on businesses, particularly local SMEs, helping to safeguard employment.

²¹ H. Brunt, et al – Air pollution, deprivation and health: understanding the relationships to add value to local air quality management policy and practice in Wales, UK, 2016