

Directorate: Resources & Housing	Service area: Sustainable Energy & Air Quality (SEAQ)	
Lead person: Polly Cook	Contact number: 0113 3785845	
Date of the equality, diversity, cohesion and integration impact assessment: 21/09/18		
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 type="checkbox"/> Trade Unions
<input checked="" type="checkbox"/> Partners	<input type="checkbox"/> Members	<input type="checkbox"/> Suppliers
<input type="checkbox"/> Other please specify		
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 C) of the Executive Board report titled “Improving Air Quality within the city” published in October 2018.

1. What we assessed

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 are in any event 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.

In September 2018, Leeds has 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. It is proposed that T/PH vehicles be required to move to a cleaner vehicle than a Euro 6 diesel or Euro 4 petrol such as a petrol hybrid, Liquefied Petroleum Gas (LPG) or electric to avoid a CAZ charge.

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 up to £50 per week cap (Leeds licensed drivers)*

For all of the impacted categories of vehicles there will be a package of measures (subject to Government funding) of support in order to mitigate the economic impact of the CAZ and assist companies in making the transition to cleaner less polluting vehicles.

We submitted Executive Board reports in December 2017 and June 2018 which were both accompanied by interim Equality Impact Assessments (EIA). This EIA will bring together both of those with new information from the statutory consultation.

2. Consultation with possible impacted groups

Since January 2018 we have held two consultations with the people that live, work or visit Leeds. This included an initial consultation between 2nd January – 2nd March 2018 and the statutory consultation which took place between 28th June – 12th August 2018.

During both 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 if the proposed CAZ is approved. These sessions included ones held for the HGV sector, T/PH, bus and coach businesses¹. We also held public events in the city that were open to all.

Through the initial and statutory consultations 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 also 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.

We had our highest response to any consultation in the city with over 8,500 responses to the first phase survey questionnaire. 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 but we felt with all the qualitative work we had done with the business sector with events, meetings and working with the trade or representative organisations we were able to get a good 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 gaps²

As part of the statutory consultation, we reviewed our methodologies to try to encourage those that were under represented to take part in the second consultation. 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. We handed out leaflets 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

¹ Further details can be found in Executive Board report appendix A.

² Only shown gaps that relate to EIA

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.

In the city we have 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 as part of the statutory consultation and we held more targeted events and meeting to engage with the potentially impacted sectors. Full information on the survey results, demographic analysis and the detailed engagement we did can all be found in the appendices of the Executive Board report.³

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 months⁴. Public Health England modelled that 29,000 deaths and 307,000 lost life years⁵ are attributed to annually to Particulate Matter (PM)_{2.5} and NO₂⁶. 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.

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.

One of the impacts that is a positive impact for the city and wider region is the bus sector has benefited from the government funding with the Clean Bus Technology Fund (CBTF). Over £4m has been made available in Leeds and West Yorkshire to retrofit buses Euro VI standard. This would mean that over 200 buses would become compliant.

3. Age

Leeds has an projected 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

³ Link to appendices

⁴ 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

⁵ Public Health England - Estimating Local Mortality Burdens associated with Particulate Air Pollution, 2014

⁶ Particulate Matter and Nitrogen dioxide

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 conditions⁷.

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

For younger people we are aware that there could be an impact on school buses and we are looking to exempt state school buses that are above Euro 3 standard and we are offering grants to mitigate the cost of upgrading to a compliant vehicle. We have also sought to mitigate other journeys undertaken by schools to educational and sporting events, we are proposing that these journeys will also be exempt. Ensuring that school related travel by children and young people is not negatively impacted by the CAZ ensures an enriched curriculum can be maintained and specific activities to tackle childhood obesity and activity levels can continue. Further school bus compliance is intended to form part of future work.

Leeds City Council is not just looking at the CAZ to improve the air quality. We have a number of initiatives that we are implementing throughout the city that will improve air quality further than the National or EU targets. Scoot to school is one of these initiatives which will provide a scooter to school children so they can use that instead of travelling by car to school, training on usage and educating both the children and parents on the advantages of not using the car for the school run. This initiative is targeted at school 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.

⁷ Royal College of Physicians – Every breath we take; The lifelong impact of air pollution, 2016

Children in each school will be 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.

We also know that because we have an aging population that condition such as stroke and cardiovascular disease are more common in older people so this number could have increased since the last census and will continue to increase in the future. Improving air quality will have a positive impact on this group of people and we are currently exploring at how we can measure this nationally with the support of Public Health England.

4. Carers

No direct impact.

5. Disabled

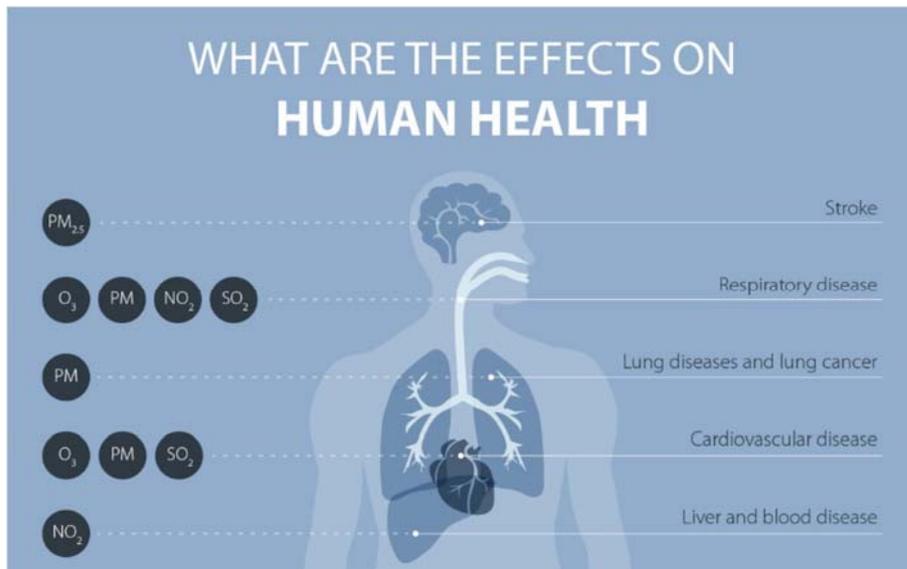
Being disabled covers a wide range of people. This includes people with mental health conditions and those who are physically disabled. Some disabled people will have chronic conditions which can be impacted by air pollution. The European Environment Agency recently said:

“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 PM⁸ as a separate component of air pollution mixtures, as carcinogenic (IARC, 2013).”⁹

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

⁸ Particulate Matter

⁹ Air quality in Europe — 2017 report



Source EEA¹⁰

By improving air quality we could improve the instances of some of the most common conditions that impacted by $PM_{2.5}$, PM_{10} and NO_2 .

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.¹¹

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.

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 are proposing to exempt WAV from the charge until the end of 2021. Disabled people may use T/PH but would not necessarily require a WAV, therefore to reduce the risk of any

¹⁰ EEA, Air quality in Europe — 2017 report

¹¹ Annual report of the Chief Medical Officer 217 Health Impacts of All Pollution

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. Once the CAZ is operational any net profits from the scheme will look at supporting WAV if in the future they were no longer exempt .

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. We are prioritising consultation on some licensing changes that would facilitate the transition to cleaner vehicles such as the age of first registration which will assist in supporting this sector as well so we can further mitigate any impact.

There is also a list of exemptions detailed in the table in section 3.36 of the executive board. This includes vehicles that are under finance packages and already licensed Euro 6 diesel and Euro 4 petrol vehicles. Any exemption will be reviewed or be in place for a limited time to ensure that the shift to lower emission vehicles within the T/PH sector continues.

There is also the positive impact of improving the impact of the air quality inside motor vehicles. Research¹² 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}

¹² 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

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.¹³

8. Religion

No direct or indirect impact.

9. Gender

We know from the latest data from the Department for Transport¹⁴ 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)¹⁵ 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.

10. Sexual Orientation

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).

¹³ <https://www.bhf.org.uk/information-support/support/your-ethnicity-and-heart-disease>

¹⁴ Department for Transport, Taxi and Private Hire Vehicles Statistics: England 2017

¹⁵ WHO, Regional office for Europe – Review of evidence on health aspects of air pollution, 2013

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.

More detailed information on the economic impact can be found in the Final Business Case¹⁶.

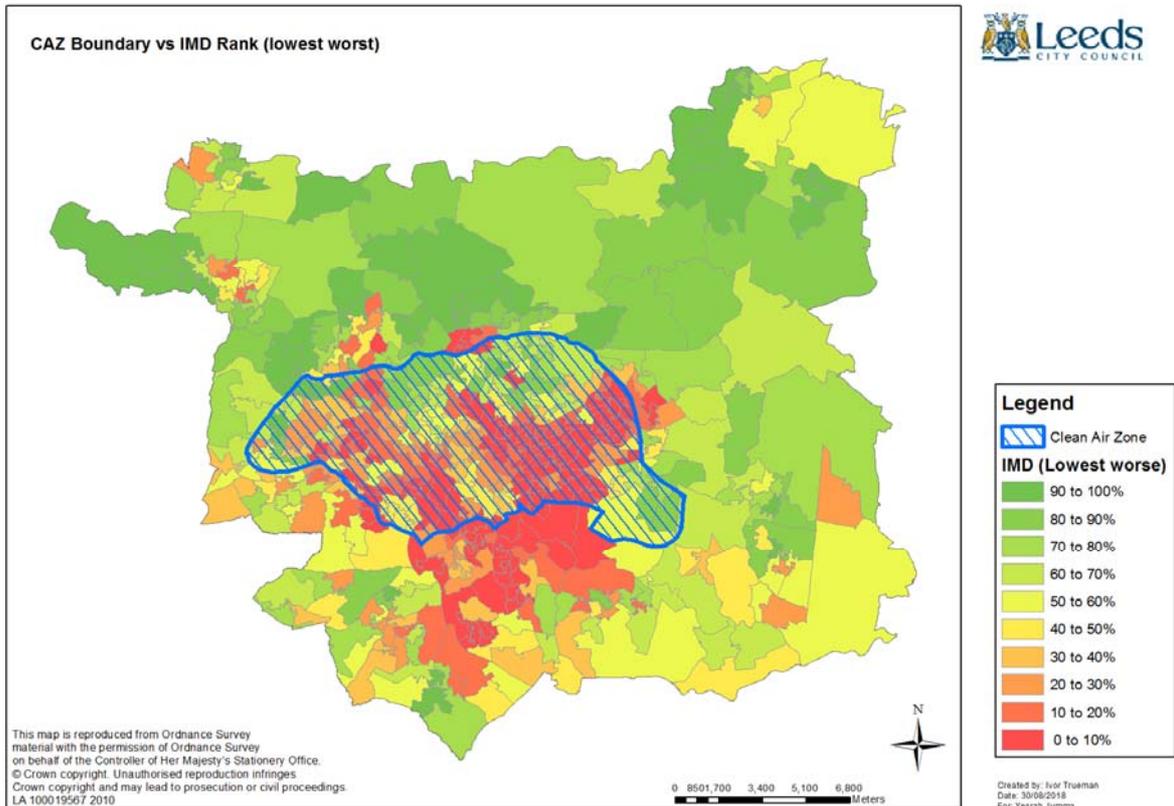
12. Deprivation

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.¹⁷ 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 years. 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.

¹⁶ Final business case : Economic case

¹⁷ LCC – Deprivation, Deprivation <https://democracy.leeds.gov.uk/documents/s62979/appendix>



A recent study has shown that deprivation and health are inextricably linked¹⁸. The CAZ will positively improve the air quality which is disproportionately experienced by the most deprived areas of the city. However, the CAZ will improve the air quality in the whole city as well as our ambition to improve the air quality further than the targets that have been set nationally and from the EU.

¹⁸ 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