

Report of: Director of Environment and Housing and Director of Public Health

Report to: Executive Board

Date: 21st October 2015

Subject: Improving Air Quality within the City

Are specific electoral wards affected?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are there implications for equality and diversity or cohesion and integration?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the decision eligible for call-in?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information? If 'yes', access to information procedure rule number: Appendix number:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Summary of main issues

1. The seriousness of current air pollution levels and their impact on public health is now much better understood. We are all exposed to air pollution to some extent and this is having a harmful effect on the health of individuals, reducing life expectancy and increasing health inequalities.
2. The Volkswagen scandal has raised public awareness about emissions levels and the detrimental effect that diesel vehicles are having on air quality. Volkswagen admitted that almost 1.2m vehicles in the UK are impacted and this means more than one-in-10 diesel cars on Britain's roads are affected.
3. The scandal has coincided with the release of DEFRA's public consultation document, which states that currently Leeds will be one of 7 locations in England that will not meet the EU air quality standards by 2020. If the UK fail to meet the standards by 2020, it could face huge infraction fines that could be passed down to the relevant local authorities under the Localism Act.
4. Transport accounts for a minimum of 60% of all emissions where objective levels are exceeded, so there is an urgent need for the Council and other fleet operators within the City to take action to improve air quality across the city.
5. Raising public awareness of the risks of poor air quality to health and providing guidance to members of the public about what they can do to help reduce emissions is a fundamental aspect of the work that will be undertaken over the next 12 months.

6. There are areas of the city centre that exceed the 40µg/m³ objective for NO₂ contained in the UK air quality regulations. For example, at the Corn Exchange the latest readings show that the level is at 55µg/m³.
7. The Council has therefore been exploring opportunities for reducing its own impact on Air Quality as well as considering levers and policies to influence others to make the necessary changes.
8. A West Yorkshire Low Emissions Strategy 2016 to 2021 (**WYLES**) has been written and is currently under consultation.
9. To support the WYLES, a Leeds' specific action plan has been developed to show what actions need to be taken in order to meet the proposed targets to ensure that Leeds' emissions fall within legal limits and that the public health outcomes for Leeds' citizens are improved. A high level summary of the plan can be found at appendix 1.

Recommendations

10. Members of the Executive Board are recommended to:

- Note the progress the Council has made to date and its plan for expansion for its own alternative fuel vehicles and associated infrastructure;
- Endorse the WYLES and Leeds' Air Quality Action Plan;
- Adopt the targets for 2020 and 2030 for PM_{2.5} referred to at paragraph 3.11 of this report;
- Support the allocation of parking spaces for electric vehicles in Council car parks to be implemented by the end of the financial year as part of the Cutting carbon and improving air quality breakthrough project;
- Support the enforcement of the planning conditions on new developments to increase charging infrastructure across the City. This is an on-going action that falls under the Chief Officer of Planning's responsibility to monitor for all new developments;
- Support the establishment of walking and cycling friendly infrastructure, using appropriate planning conditions to ensure new developments support alternative modes of transport;
- Support further work being carried out to determine the required scope and number of potential clean air zones within the city to ensure compliance with EU directives is met as a minimum, improving public health outcomes for the citizens of Leeds. The Director of Environment and Housing will oversee the delivery of the study and report back to Executive Board on progress as part of the breakthrough project's annual report.

1 Purpose of this report

- 1.1 The purpose of this report is to provide an update on progress since the report that was brought to Executive Board in December 2014 as well as to provide details on the West Yorkshire Low Emission Strategy paper, Leeds' action plan and a number of current opportunities for funding in relation to the subject matter of this report.

2 Background information

- 2.1 The Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP) estimate the burden of particulate air pollution in the UK to be equivalent to nearly 29,000 deaths (2008) and an associated 340,000 life years lost across the population¹. For Leeds this is equivalent to 350 deaths (2010) and an associated 3,825 life years lost². These measures are an average across the population; it is not known how the effects are distributed among individuals.
- 2.2 There is now categorical evidence that long-term exposure to everyday air pollutants contributes to cardiovascular disease (CVD, including heart diseases and stroke), lung cancer, and respiratory disease (including asthma and chronic bronchitis). The heaviest burden is borne by those with greatest vulnerability and/or exposure. The elderly, children, pregnant women and those with cardiovascular disease and/or respiratory disease are more susceptible to air pollution than others. Those who spend more time in highly polluted locations will be affected more.
- 2.3 Reducing PM by 10µg/m³ would extend lifespan in the UK by 5 times more than eliminating casualties on the roads, or three times more than eliminating passive smoking.⁴
- 2.4 There are no absolutely safe levels of the main pollutants of concern. Any improvement in air quality will therefore have positive health consequences³
- 2.5 Asthma UK report the following:
- Two thirds of people with asthma find that air pollution makes their asthma worse, putting them at an increased risk of a potentially fatal asthma attack
 - People with asthma have told us that on days when air pollution levels are high they feel that they can't even leave the house for fear that it will trigger an attack.
 - 42% of people with asthma have told us that traffic fumes discourage them from walking or shopping in congested areas.
 - 29% of people with asthma have told us that a reduction in air pollution is the single thing that would make the most difference to their quality of life

¹ COMEAP (2010) "The Mortality Effects of Long-Term Exposure to Particulate Air Pollution in the United Kingdom: A report by the Committee on the Medical Effects of Air Pollutants", https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/304641/COMEAP_mortality_effects_of_long_term_exposure.pdf

² Public Health England (2014) "Estimating Local Mortality Burdens Associated with Particulate Air Pollution" https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332854/PHE_CRCE_010.pdf

³ Review of evidence on Health Aspects of Air Pollution – REVIHAAP project: final technical Report, World Health Organization Office for Europe, 2013. <http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2013/review-of-evidence-on-health-aspects-of-air-pollution-revihaap-project-final-technical-report>

⁴ Miller and Hurley (2006) "Comparing estimated risks for air pollution with risks for other health effects", Institute of Occupational Medicine, Report TM/06/01

- 85% of people with asthma have told us that they are concerned about the effect that increasing traffic fumes will have on their and their family's health in the future.

2.6 The case study below illustrates how poor air quality can impact on an individual's health. This case study is typical of many cases that present in Leeds with asthma exacerbations.

Case Study (provided by Respiratory Clinician at LTHT)

A female patient, age 24, non-smoker, had a history of well controlled asthma during childhood in New Zealand. She came to Leeds in 2013 at which point she was taking a low dose steroid inhaler and her lung function was stable. Since arriving in Leeds, and despite medical attempts to improve her stability, the patient has experienced several asthma exacerbations requiring hospital treatment. When admissions were compared with air quality, there was a definite link. Since leaving Leeds in 2014, the patient's asthma medication has reduced to the original treatment and her chest remains stable.

- 2.7 General public awareness of the impacts of poor air quality on their health is lower compared to other health issues such as smoking or obesity. There is a requirement for levels of awareness to be raised if the City is to be able to significantly reduce its level of emissions.
- 2.8 Nationally, the government's plans to improve Air Quality in order to meet 2010 targets set by the EU were dismissed as insufficient and quashed by the Supreme Court in April 2015. The court ruled on the basis that plans would not achieve legal limits in some British cities until after 2030. Client Earth (an environmental pressure group) took the case to the Supreme Court on the basis of the government's failure to plan effectively and to further demand that the EU then expedite the case against the UK government and press for fines for failure to meet obligations. Client Earth's case concerned 16 cities and regions, with Leeds, London and Manchester being repeatedly referred to in national press coverage of this ruling.
- 2.9 A report was brought to Executive Board in December 2014 that looked at the feasibility of introducing a Low Emission Zone (**LEZ**) in the centre of Leeds. It was recommended that the required improvements to air quality should be achieved via dialogue with key transport partners rather than via enforced change but that a LEZ would remain an option if progress was not made quickly enough. DEFRA now use the term Clean Air Zone (**CAZ**) to refer to a LEZ.
- 2.10 Where pollutant levels exceed or are likely to exceed the air quality objectives, Local Authorities are required to declare Air Quality Management Areas (AQMA) and devise Action Plans to improve air quality. Leeds currently has 6 AQMA declared for Nitrogen Dioxide and nationally there were 613 declared at the end of 2013.
- 2.11 DEFRA has installed air quality measurement equipment as part of the Automatic Urban and Rural Network (AURN) at two sites in West Yorkshire, both of which are located in Leeds (one on Woodhouse Lane in the City Centre on land to the south of the multi-storey car park and the other at the City Council's kerbside site on Otley Road, Headingley, close to the junction with Shire Oak Road). The equipment measures NO₂ as well as particulate matter, specifically PM₁₀ and PM_{2.5}. The Council have chosen to carry out the majority of additional monitoring at or in the immediate vicinity of residential properties. PM₁₀ is measured at one additional site located alongside the bus stops at the Corn Exchange,

using Council owned equipment. NO₂ is measured at nine sites (including both AURN sites) across the city, using automatic equipment. Hourly results from the automatic analysers is collected daily by a software package for data management held within the Council. Monthly data about NO₂ is also obtained from a further 70 sites, using passive diffusion tubes.

- 2.12 However, many of Leeds' nationally reported breaches of the EU Directive exist at publicly accessible locations where no long-term exposure is likely to occur. These include footpaths alongside the Inner Ring Road close to the former Yorkshire Post building and Armley Gyratory; adjacent to the bus station; the Meadow Road access into the city centre and the associated section of the M621 motorway.

3 Main issues

DEFRA Consultation

- 3.1 DEFRA has recently published a consultation document that identified Leeds as one of seven locations in England that currently is not expected to be fully compliant with the European Directive by 2020. A stretch of 2.7km of the inner ring road, running through the Armley Gyratory, has been identified as being at risk of being non compliant in terms of NO₂ levels after 2020. Roads are only considered to be non compliant if there is risk of exposure to the public i.e. residential properties nearby, pedestrian access etc.
- 3.2 As extended public exposure has been the Council's main concern to date, limited monitoring has been carried out to establish baselines or changes that may be achieved by traffic management, emission reductions and other means at these specific 'EU sites', with no adjacent residential properties.
- 3.3 With the section of road that has been flagged by DEFRA, there is clearly a need to examine in closer detail how measures might be deployed as a short term expedient for meeting the European Directive by 2020. However, it is recognised that the issues identified on the 2.7km stretch of road are only symptomatic of the wider issues that have been illustrated by the work in Leeds and West Yorkshire..
- 3.4 The Council met with DEFRA on 25th September to discuss the consultation document in detail and the action plan. At the meeting it was agreed that:
- The Council will implement further air quality measurement equipment along the section of road that has been identified as at risk to verify the results of the model;
 - If the monitoring shows that the risk is lower than anticipated, the Council will review the model and support the development of a local model that is adapted to the conditions within Leeds;
 - Any monitoring methodology or changes to the model will need to be agreed to ensure that they are EU compliant;
 - In parallel with reviewing the model and measurement, the options for changing the pedestrian access along this section of road are also being reviewed.

- The Council will both respond to the formal consultation by the deadline of 6th November and provide a high level summary of what support it needs from central government to achieve compliance.

3.5 DEFRA highlighted that the planning process should also not allow any scheme which will delay compliance as well as introduce exceedance. This raises issues for consideration within the development of the plans for transport in the City Centre which may have implications for future traffic levels using the roads currently identified as non-compliant.

3.6 DEFRA reported that they as part of their action plan that will be submitted in December, they will state that Leeds can become compliant by 2020 if a clean air zone were to be implemented. It is anticipated that a Clean Air Zone (CAZ) proposal for Leeds would be used to regulate buses, coaches, taxis, HGVs and LGVs but not the domestic car. DEFRA are currently consulting on a framework for CAZs that would set the criteria that vehicles would have to meet. This suggests that the CAZ would limit petrol engines to EURO 4 and diesel engines to the Euro 6 standards. In the short term DEFRA strongly suggested that as a minimum a voluntary CAZ is considered. The publication of the DEFRA consultation and the identification of Leeds as an area of concern has increased the pressure on the Council to seriously consider the implementation of a CAZ as part of its air quality strategy if the Council's monitoring confirms DEFRA's findings.

WYLES

3.7 A West Yorkshire Low Emission Strategy 2016 to 2021 (WYLES) has been developed through collaboration between the Councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield Council as well as Public Health England and West Yorkshire Combined Authority. This document can be found at appendix 2.

3.8 The vision contained within the WYLES is:

“A vibrant West Yorkshire economy, where people use transport and power and heat their homes and businesses in a way which improves air quality to create a safe and healthy environment for people to live, work and invest.”

3.9 In working towards the above vision, the West Yorkshire local authorities will use the strategy to achieve the following aims:

Aim 1	Air quality in West Yorkshire will meet the air quality limit values as set out in EC Directive 2008/50/EC by 2020
Aim 2	To contribute significantly to a reduction in emissions across the region and at locations where concentrations are known to be especially high.
Aim 3	To avoid activity which has an adverse impact on air quality and to prioritise activity which delivers co-benefits of cutting carbon emissions and reducing environmental noise.

3.10 The WYLES therefore provides the framework for the specific activity that Leeds Council plans to undertake to improve air quality. The Council has developed a high level plan on

a page (appendix 1), supported by a detailed action plan to show how the Council will meet the specific targets contained within the WYLES.

- 3.11 The current target for PM2.5 particulate matter is to attain a concentration of less than 25 $\mu\text{g}/\text{m}^3$ and to reduce the 3 year rolling average by 15% from 2010 level by 2020. As this has already been achieved across the city, it is suggested that the Council adopt a target to reduce the PM2.5 by 20% from 2010 by 2020 and to aspire to meet the World Health Organisation's limit of 10 $\mu\text{g}/\text{m}^3$ by 2030.
- 3.12 The action plan is a live document with a number of identified projects. Against each project or programme, the anticipated air quality benefits will be projected. As projects are completed, actual benefits will be recorded against those projected to ensure that the overarching air quality targets will be achieved across the city. If the total benefits of the identified projects are insufficient to meet the agreed targets, additional options will be investigated to ensure that the targets are met.
- 3.13 In order to meet the targets, changes need to be made to all areas of fleet across the City, including but not limited to buses, taxis and private hire, private vehicles, HGVs and LGVs. The chart below shows that all of these sectors are major contributors to the air pollution within the City and that an action plan for each sector is required as tackling one sector in isolation will not enable the City to meet the necessary reductions.

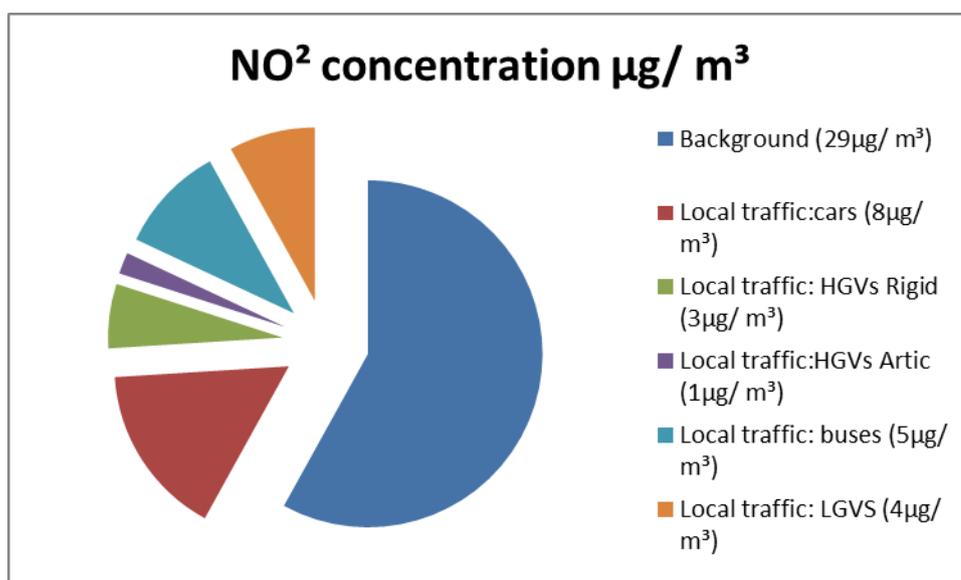


Chart 1

- 3.14 The background emissions refers to emissions that are generated by domestic heating, industrial processes from both within and outside the West Yorkshire boundary as well as transport sources plus natural background levels.
- 3.15 The Council's vision for the future of transport is detailed in the Executive board report "21st Century Leeds 'A new direction in transport for a new kind of city'" also to be presented to Executive board this month and the longer term strategic aims contained within the report support the change that is required to deliver the improvement in air quality for the city.
- 3.16 West Yorkshire has been shortlisted to submit a bid for the 'Go Ultra Low City Scheme' (GUL City bid) – a £35m fund that will be split between 2 or 4 regions or cities. The scheme is designed to encourage bidders to develop ambitious, innovative campaigns to drive up the number of electric vehicles purchased in their area. These plans may take the

form of providing support for public sector fleet purchases, assisting businesses to establish business case for EV use, creating a scrappage scheme to encourage a shift from diesel to EV cars across the domestic and small business sectors as well as developing policy levers or incentives to make EV purchases more favourable. Additionally, development of 'Smart' technology to make vehicle charging easier, investigating opportunities for sustainable energy generation to support charge points and running campaigns to encourage the trial of electric vehicles amongst the public will form part of the strategy to encourage take up of EV's.

Measurement

- 3.17 As the current automatic measurement of air quality is minimal, this limits the opportunities for real time use of the data to support individuals with specific health concerns to adjust their behaviour dependant on the level of emissions on any given day. It also limits our ability to see first hand the impact that certain measures have on air quality and to see whether there are any other emerging areas of concern.
- 3.18 To overcome this barrier, the Council will establish a network of measuring equipment by 2020. The Council is exploring a number of funding opportunities and links with the University of Leeds to increase the frequency and spread across the city of air quality measurement for all emission types.

Council's Progress

- 3.19 In order for the Council to be able to drive change across the City, it is key that the Council leads by example. Since the report of December 2014, a review of all the Council's fleet has been undertaken to identify opportunities to replace the fleet with lower emissions vehicles. By the end of 2015/16, the Council will have increased its proportion of low emission fleet to at least 7% from 3%. Each year the annual replacement programme will be reviewed to ensure that lower emission vehicles are considered for all vehicles that are due for replacement. The replacement programme process has been redesigned so that low emission vehicles will be the default option unless these are not available or operationally unsuitable.
- 3.20 A report was also presented at Executive Board in July 2015 that focused on the development of a Compressed Natural Gas (CNG) station within the vicinity of the Aire Valley, enabling the fleet of 73 refuse collection vehicles to be converted to compressed gas by 2021. These vehicles have the highest emissions within the Council's fleet, so disproportionately contribute to the fleet's overall emissions. The CNG station will also provide opportunity for further fleet conversion, both within the Council and across other fleet operators within the City.
- 3.21 The table below shows the fleet replacement profile, the number of vehicles that will be replaced each year with an alternative type and highlights that by 2020 it is anticipated that 23% of the Council's fleet will have been replaced by alternative fuelled vehicles or hybrids.
- 3.22 The pace of change for the Council's fleet is dictated by two key elements, the ability to establish operational and economic feasibility of alternative fuel vehicles and the availability of suitable infrastructure to support the vehicles. CNG will only be available as a fuel from 2018 based on current planning, hence facilitating an accelerated transfer to gas vehicles from that date onwards. Electric charge points require sufficient power supply at depot locations, however this is a significant barrier to deployment as most sites do not have spare energy capacity, as such investment in supply is required.

Year	No of vehicles due for replacement in year	No. & % of in year replacements to be moved to alternative fuels/ hybrids	Total no. / % of fleet running on alternative fuels/ hybrids etc. by end of year
2015/16	303	50 (16.5%)	93 (7.5%)
2016/17	85	22 (25%)	115 (9.5%)
2017/18	29	20 (68%)	135 (11%)
2018/19	47	27 (57%)	162 (13.5%)
2019/2020	223	115 (51%)	277 (23%)

Table 1 – Anticipated Council fleet replacement profile for the next 5 years

- 3.23 As well as the Council’s fleet, work is being undertaken to examine the ‘grey fleet’ – essentially this is vehicles used in the course of business travel, such as use of employees own cars, taxis, buses and trains – and how the emissions from these can be reduced. Provision of an effective sustainable travel plan that encourages low emission travel is being developed. As part of this work an electric pool car is currently being trialled with members of staff working within a housing office.
- 3.24 Further work will also be undertaken to ensure that the Council’s procurements evaluate the supplier’s impact on air quality (e.g.. contracts using delivery vehicles etc.), as well as looking at using the car leasing scheme to influence staff behaviour.

Cars - Domestic Customers

- 3.25 As well as encouraging commercial fleets to changeover to alternative fuels, it is important that work is undertaken to encourage change by private individuals. The change could be anything from leaving their car at home and choosing an alternative method of travel (e.g. walking, cycling, public transport, car sharing etc.), to buying a hybrid or electric vehicle. Work is on-going to improve the choices currently available for those who want to leave their car at home (e.g. cycle superhighway, new train stations, new park and rides, NGT etc.).
- 3.26 The Council has a key role to play to influence the shift to alternative methods of transport for domestic customers, using its parking policy to encourage people to choose more sustainable modes of travel into the city centre as well as supporting travel planning across the City.
- 3.27 It therefore remains most important as the pace of technology and innovation proceeds that the public are well informed about the choice and implications of their travel and vehicle purchasing decisions. However, there is still a lack of awareness about the public health issues caused by poor air quality, preventing the general public from making informed choices. The lack of real time data available makes it more difficult to engage with the public on an on-going basis. Public Health will continue to explore opportunities to fund awareness campaigns, albeit now in the context of the recent national announcement of a reduction in the public health grant.
- 3.28 The Council is also exploring ways to make the issue more commonly understood both internally and externally. Internally channels such as Get Connected will be used to raise employee awareness as well as using the normal communication channels to highlight the changes that the Council is making. Again the Council will work to promote Council

change externally to raise the profile of air quality as an issue and to show what can be done to reduce emissions

- 3.29 If WYCA is successful in its bid for the GUL City Bid, there will be opportunities to use the funding to improve public awareness of electric vehicles across the region.
- 3.30 People are often reluctant to buy an electric vehicle as they are concerned about how far they will be able to travel on the charge and where they will be able to recharge their car. This is known as “range anxiety”. Yorkshire and Humberside currently has the lowest number of electric vehicle charge points in the country. The Council currently operates 24 publically accessible charge points in the City, of which 8 are dedicated to Electric Vehicle (EV) drivers only. The remainder can be used by non-EV drivers, or used by EV drivers with a pre-arranged appointment. Across the City there are approximately 20 other charge points (this excludes those in car dealerships). This number will increase as planning consents are granted. Ownership of electric vehicles is also very low compared to other regions.
- 3.31 Most people who buy electric cars will primarily charge their vehicle at home and will not need to charge again to undertake their normal day to day travel as an electric vehicle can support approximately a seventy mile round trip without recharging. However, the lack of charging infrastructure is still an issue for longer journeys. The OLEV City bid will enable some improvement in infrastructure but there is likely to still be a requirement for further investment.
- 3.32 Another lever that the Council has to encourage the uptake of electric/ hybrid cars in the domestic sector is to use existing planning conditions to ensure that new houses are equipped with charging points. For houses with garages, this is a very minor additional cost as most houses will already be equipped with an external electricity supply. For developments that have car parking, it is still possible to provide a number of charge points proportionate to the number of dwellings or the amount of floor space being created.
- 3.33 Designated parking for low emission vehicles is also proposed as an additional incentive to encourage people to swap to low emissions vehicles. The Council will provide designated spaces at a number of car parks across the City, linked to charging infrastructure. The parking may either be provided free of charge or at a reduced rate.

Cars – Taxi and Private Hire

- 3.34 The proportion shown in chart 1 at paragraph 3.7 for cars, also includes taxis and private hire vehicles. There are currently 3,700 private hire vehicles and 530 ‘hackney’ taxis licensed within Leeds, with the number of licensed drivers being higher as some vehicles are utilised by multiple users. The majority of these vehicles are diesel, with a very small number of petrol or hybrid vehicles currently operating. The age profile of both private hire and taxi fleets shows that licensed vehicles are typically between 3 and 9 year old. A Taxi or Private Hire vehicle may complete up to 50,000 miles in a year, compared to the average vehicle which will cover 7,900 miles annually. The age of vehicles, the fuel used and the high mileage of each contribute to the trade having a disproportionate effect on air quality relative to the number of vehicles operating.
- 3.35 Analysis of traffic flow utilising ANPR data across 4 key traffic locations demonstrated that taxi and private hire vehicles accounted for on average 6% of all traffic. The highest traffic flows of all vehicles was found along the A660, the proportion of taxi and private

hire vehicles relative to other vehicles was also highest along this route. Whilst general traffic flow peaks significantly between 6 and 9am with a slight peak across late afternoon and early evening, taxi and private hire has a less well defined cycle with a largely static volume of vehicles operating with a decline only between 2 and 5am. Across Leeds analysis found that at certain times of day (11pm to 2am) taxis accounted for 35% of the proportion of traffic flow. Taxis by their nature spend time idling at ranks, which has a negative impact on emissions, private hire vehicles will often idle when awaiting pre-booked passengers. Activity is often clustered around key sites – for example Leeds City Train Station as well as city centre pick up and drop offs, therefore concentrating the effects of emissions within areas that are already affected by traffic volumes from different vehicles (buses, private vehicles, retail deliveries and so on.)

- 3.36 There is therefore a clear case for change, if a significant number of taxi and private hire vehicles can be transitioned to low emission alternatives then there will be a measurable impact upon Air Quality. Leeds University research found that if all private hire and taxis were transferred to Hybrid Electric vehicles then reductions across the whole Leeds transport sector in CO₂, NO_x and PM would be 1.5%, 4.1% and 4.4% respectively.
- 3.37 As part of the GUL City Bid West Yorkshire also plans to utilise some of the potential funding to support the private hire trade by extending the scrappage scheme for small business to the trade to encourage a shift from diesel to electric or hybrid electric vehicles. Support in assessing the feasibility of running hybrid electric effectively and the required infrastructure for this will be provided through an Energy Savings Trust study for the region. Increasing the number of electric and hybrid electric vehicles in the region will also then provide a greater volume of second hand vehicles of this nature that will appeal to the private hire as well as taxi trade as they typically use second hand vehicles.
- 3.38 There is also the ‘Taxi Fund’ a £20m scheme designed to allow for subsidy to be provided to drivers or operators purchasing ultra-low emission, Hackney vehicles that have been adapted for use by disabled passengers. This scheme can also be utilised to support the development and delivery of charge infrastructure for both Hackney taxi and private hire vehicles. The West Yorkshire authorities are bidding as a region and have been awarded a fully funded feasibility study that will assist with identifying opportunities for low emission vehicles being introduced to taxi and private hire fleets. Submission of this bid will supplement the GUL City Bid in providing for support and incentives across the region for both Taxi and private hire fleets. Consultation with the trade across the region is underway that has secured support from operators for both the GUL City Bid and the Taxi Fund and is also being used to refine the measures that would be required from the trade to assist with a transition to electric or hybrid vehicles.
- 3.39 A significant challenge to transitioning Leeds fleet of Taxi and Private Hire vehicles to low emission vehicles is presented by the De-Regulation Act which came into effect from 1st October 2015. This act enables operators to subcontract work to drivers and vehicles licensed outside the district, effectively allowing vehicles and drivers licensed outside of Leeds to freely operate within the authority. As such efforts to challenge local operators to license cleaner vehicles in Leeds could be undermined by older, higher emission vehicles from other districts being driven within the city.

Buses

- 3.40 West Yorkshire Combined Authority (**WYCA**) currently has limitations on its powers to require bus operators to provide services with vehicles meeting specified standards. The exception to this is where bus services are operated

under contract to WYCA. These services are, in general, those where revenue would not justify commercial operation but there is a social need, with the majority of such services being in the more rural areas of West Yorkshire or linking communities to smaller centres

3.41 There are a number of options for influencing fleet investment by bus operators operating commercial services, as set out below:

- WYCA could introduce a Statutory Quality Partnership Scheme whereby bus operators were required to meet environmental standards in return for a proportionate improvement in bus infrastructure within the City Centre. Operators can object to such a scheme if they felt that the requirement on them was not proportionate to the benefits.
- WYCA could develop a Voluntary Partnership scheme whereby there is agreement between the parties on a timetable for environmental improvements, allowing the industry to adjust to increased environmental standards over time. Whilst such a scheme has no “teeth” operators have been willing to enter into such arrangements in the past and as PLCs, by and large, they have adhered to the partnership proposals as there is a reputational risk of renegeing on the agreement.
- Signalling intent through amending the conditions of contract for procured bus services.
- Funding, within affordability constraints and State Aid rules, the additional costs of greener buses. To date WYCA has done this through bids for external funding and is currently bidding for further funding from both the Clean Bus Technology Fund, enabling bus retrofit and the OLEV Low Emission Bus Scheme for the purchase of replacement buses.

3.42 WYCA is also pursuing the inclusion of Bus Franchising powers within the Leeds City Region Devolution proposals. This would allow environmental standards to be set on all bus services as part of contract specifications, albeit within affordability constraints. It is expected that a Buses Bill will set out how these powers might be exercised, and the associated timescale.

3.43 WYLES will set out targets for cleaner bus fleet and lead to discussions and negotiation on how these could be achieved by 2020.

3.44 The Council will undertake further work to investigate the feasibility of implementing one or more Clean Air Zones across the city in the absence of finding a negotiated position with the bus companies.

Commercial Vehicles (HGVs and LGVs)

3.45 The GUL City Bid will provide opportunities for SMEs to change their fleet to lower emissions alternative via the introduction of a scrappage scheme.

3.46 In addition the creation of the CNG station within the vicinity of the Enterprise Zone presents real opportunities for the HGV sector to move to a lower emission alternative. In the business case for the CNG station, money has been allocated for the marketing of the

alternative fuel to try and encourage companies to make the switch. Links are already starting to be established with potential customers within the Enterprise Zone.

- 3.47 Other options that will also be considered are the introduction of a Clean Air Zone targeted at specific categories of commercial vehicles. Further work will be undertaken to look at both the options and the likely benefits.

4 Corporate considerations

4.1 Consultation and engagement

- 4.1.1 A cross functional team, including representatives from HR, highways, environmental health, public health, PPPU, ICT, planning and WYCA have been involved in developing the underpinning action plan.
- 4.1.2 The Institute for Transport Studies from the University of Leeds is involved in developing the GUL City Bid.
- 4.1.3 A SmartKlub event held in July 2015 which considered the barriers and opportunities inherent in developing an alternative fuel infrastructure. Business representatives recognised the uncertainty in this field and are looking for support from the state to help establish effective delivery models. A key opportunity, but not without challenges is to establish city scale sustainable energy supplies to support transport. SmartKlub recommended that other agencies are tasked to manage these ideas into business propositions, through LEP – Smart Energy Accelerator, Open Data Institute data dives and further SmartKlub input into sustainable energy and electric vehicle charge points as a theme within the OLEV bids.
- 4.1.4 Consultation and engagement with the Taxi and Private Hire trade, both in Leeds and across the West Yorkshire Region are on-going. Initial representations have been made to the trade and members via the Taxi & Private Hire Licensing Committee Working Group. Further consultation with the trade has been undertaken via the Highways and Taxi Association meeting, a forum in which the trade regularly engage with the Council. Both of these events have been used to measure the appetite for transition to low emission vehicles and assess what level of support the trade may need to make that change. The Air Pollution Service Manager and the Institute for Transport Studies (Leeds University) have also undertaken research on the suitability of utilising hybrid electric vehicles for taxi or private hire use with the support and consultation of the trade. A workshop held in Leeds, to which representatives of the trades across West Yorkshire had been invited was undertaken in August 2015 at which the opportunities for transition to low emission vehicles were discussed. Whilst there are barriers to overcome, and more work to be done to determine a road map for the transition of taxi and private hire vehicles to low emission alternatives there is support for this from the operators. Letters of support have been submitted by trade representatives across West Yorkshire that endorse the regions bid for the Taxi Fund with operators keen to develop their understanding of both the economic and environmental opportunities that low emission vehicles may offer, as such further dialogue is planned with more detailed information to be provided to operators that will better enable business modelling to be completed.
- 4.1.5 The Executive Members for the environment, environmental health and public health and wellbeing and transport have all been consulted. An air quality session was also run for the whole of Cabinet in October.

4.2 Equality and diversity, cohesion and integration

- 4.2.1 As the purpose of this report is to look to improve air quality, the benefits will be more marked in the groups that have been identified as more susceptible to the impacts of air quality according to data published by Public Health England.
- 4.2.2 An equality impact assessment was completed on 25th August 2015 and is attached at appendix 3.

4.3 Council policies and the best council plan

- 4.3.1 The successful implementation of the air quality action plan contributes to the Council's cutting carbon and improving air quality breakthrough project, directly contributing to the sub area of making low carbon Leeds a reality by planning for a more sustainable future and setting a revised and improved carbon target for 2050. It will also make a significant contribution to the reduction of harmful emissions from the council's fleet and will therefore also support the sub area of delivering air quality improvements by transforming the Council's fleet of vehicles and establishing a green transport infrastructure.
- 4.3.2 The aims of WYLES should also support and influence the rethinking the City Centre breakthrough project in terms of ensuring any redesign focuses on improving air quality within the City. This will complement and support policies being developed by WYCA as part of the forthcoming new Single Transport Plan for West Yorkshire.
- 4.3.3 The development of the related green infrastructure directly contributes to the Council's forward looking commitment of introducing 21st Century infrastructure.
- 4.3.4 The use of alternative fuels will directly contribute to a reduction in the Council's carbon emissions, a measurable KPI included in the Best Council Plan.

4.4 Resources and value for money

- 4.4.1 To successfully deliver improved air quality for the city, a cross Council approach is required as it cuts across so many areas of work (e.g. public health, planning, parking, transport, environmental health). This work has been incorporated into the Cutting Carbon Breakthrough Project team's work programme, managed by PPPU.
- 4.4.2 Where possible, the team are identifying and bidding for grants to support the development of this work.
- 4.4.3 The replacement of the Council's own fleet for alternative fuel vehicles will be done as part of the normal vehicle replacement cycle and supported by individual business cases to show the benefit over the whole life of the vehicle.

4.5 Legal implications, access to information and call-in

- 4.5.1 There are no legal implications to note in respect of this report.

4.6 Risk management

- 4.6.1 The Council has focused on dealing with air quality within residential areas, where there is the potential for prolonged exposure under the UK Air Quality Regulations. However, DEFRA also have to comply with an EU Directive that focuses on the areas with poor air quality but where there is more limited opportunity for exposure. This creates a potential challenge between meeting the Council's primary objectives to protect the health of its citizens as effectively as

possible and the pressure that it may be put under by Central Government to tackle areas where prolonged exposure is lower.

- 4.6.2 If WYCA is unsuccessful in securing funding from the GUL City Bid that will enable the region to accelerate the growth of electric vehicles, then this will be a major set back in the City's plans. However, the Council will still be able to promote the growth of CNG vehicles and in parallel look for opportunities to work with the commercial sector/ LEP to investigate other ways to incentivise faster growth in the region of alternative fuelled vehicles.
- 4.6.3 As there is evidence to suggest that certain groups (elderly, children, pregnant women, disabled) are more adversely affected by poor air quality, there is a risk of challenge under the public sector duty of the Equality Act 2010 should the Council fail to take action to address air quality, particularly from those that reside in areas designated as Air Quality Management Areas.

5 Conclusions

- 5.1 Long term it is very clear that only concerted action across a range of measures will provide the kind of comprehensive solutions to the air quality issues within the City.
- 5.2 As part of the cutting carbon and improving air quality breakthrough project an annual report is taken to executive board annually to show progress to date. Within this report it is intended to incorporate an update on the work towards the improvement of air quality so that progress and the associated action plan can be monitored annually.

6 Recommendations

Members of the Executive Board are recommended to:

- Note the progress the Council has made to date and its plan for expansion for its own alternative fuel vehicles and associated infrastructure;
- Endorse the WYLES and Leeds' Air Quality Action Plan;
- Adopt the targets for 2020 and 2030 for PM2.5 referred to at paragraph 3.6 of this report;
- Support the allocation of parking spaces for electric vehicles in Council car parks to be implemented by the end of the financial year as part of the Cutting carbon and improving air quality breakthrough project;
- Support the enforcement of the planning conditions on new developments to increase charging infrastructure across the City. This is an on-going action that falls under the Chief Officer of Planning's responsibility to monitor for all new developments;
- Support the establishment of walking and cycling friendly infrastructure, using appropriate planning conditions to ensure new developments support alternative modes of transport;

- Support further work being carried out to determine the required scope and number of potential Clean Air Zones within the city to ensure compliance with EU directives is met as a minimum, improving public health outcomes for the citizens of Leeds. The Director of Environment and Housing will oversee the delivery of the study and report back to Executive Board on progress as part of the breakthrough project's annual report.

7 **Background documents**⁴

None

⁴ The background documents listed in this section are available to download from the council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.