Sheffield's Clean Air Strategy

Foreword

I am pleased to present Sheffield's Clean Air Strategy. It sets out a compelling vision for the future, the scale of the challenge we face and the specific actions – both short and long term – that we will take to improve air quality.

The changes we are proposing will help to build a city for the many not the few, by making Sheffield healthier, easier to move around and play a role in growing our economy.

Clean Air is a fundamental right – all our lives depend on it. But air pollution threatens that right.

Clean air is also an issue of fundamental fairness and basic social justice. It is the poorest and most vulnerable in our city (including the very young and very old) who are most affected by polluted air, even though these people are almost never the polluters. We are clear that greater equality and cleaner air go hand in hand.

We face a significant threat from air pollution. Unlike in the past, however, it is often an invisible killer, and the threat comes predominantly from the vehicles we use to get around (particularly diesel ones) and the energy we use to power our industry.

Across the UK, air pollution is a public health emergency. It has been linked to strokes, heart attacks, cancer, asthma and dementia. Research shows that children exposed to air pollution have smaller lungs and negative health effects for their whole life[1]. It is estimated that there are 500 early deaths a year in Sheffield where air pollution is a contributory factor.

This strategy treats the issue with the seriousness it requires. Although Sheffield's air quality situation is not dissimilar to that of most large UK cities, our vision, determination and plan is yet to be surpassed. As such, I believe this is the most far-reaching and ambitious Air Quality plan anywhere in the UK.

Whilst we will do everything we can, the UK government continues to delay taking any meaningful intervention on air quality, despite the UK breaking EU law on Nitrogen Dioxide (NO_2) gas since 2010. Their approach lacks clarity, pace and leadership. We continue to find it woefully inadequate for the scale of the challenge that we face. Britain deserves better than this.

In addition, around 85% of the regulations, laws and guidelines currently concerning Air Quality are agreed at the international level. Britain's departure from the European Union potentially threatens many environmental safeguards. We will ensure that in Sheffield at least, Brexit does not lead to a "race to the bottom" and a loss of the environmental protections our city needs.

Polluted air is a major drain on Sheffield's economy, currently costing around £200m every year, impacting on our economic growth and people's health. There is no tension between cleaner air and economic success. Indeed, clean, safe air is a requirement for inclusive economic growth that works for

[1] Royal College of Physicians 'Every breath we take: the lifelong impact of air pollution': https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution

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everyone. A city with clean air, an efficient public transport system, high levels of active travel and healthier citizens will have a stronger, fairer economy. Sheffield has a proud history of forging innovation and social justice together, as in the 1970s when we were the first city to implement Clean Air powers– this strategy deliberately draws on that heritage and capacity

There may be a temptation to treat air quality as a solely technical or scientific issue. But this would be a mistake; in order to be successful we need to genuinely and persuasively win hearts and minds and change behaviours. That means working together in a different way. As such, this strategy is not just a Council document – it is explicitly a whole city plan, which will be formally reviewed every year.

The government is imposing statutory duties upon Councils to tackle poor air quality, which are addressed in this plan. Throughout, we have used green boxes to indicate the specific actions we will take, ensuring there is a bias for action and delivering the results we need to see. A summary of all the actions is included at the end of the strategy.

This strategy articulates a clear and compelling vision for Sheffield's air, with meaningful and tangible actions, based on data and evidence. We recognise that some of the solutions to our air quality challenge may not be easy, cheap or popular – but they are required and they are right if we are to achieve our vision for the fairer city we want to build together.

Councillor Jack Scott,

Cabinet Member for Transport and Sustainability

Our Clean Air Vision

We want the air in Sheffield to be safe to breathe, regardless of where people live, work or visit.

We will work together to tackle the sources of air pollution and we will create a healthy, thriving city where many more journeys are made using active travel and low emission public transport.

We will follow these key principles to improve air quality in Sheffield

We want clean air for everyone in Sheffield and we will close the gap between the communities with the least and most polluted air.

We will focus on the biggest causes of air pollution and improve them as quickly as possible.

We will support people to make healthy and active travel choices.

We will particularly support and protect vulnerable people to ensure clean air for all.

We will invest meaningful resources in becoming a clean, sustainable city.

Our Clean Air Plan – our key actions

1. **Feasibility Study** – determine *if* a Clean Air Zone is required in Sheffield[2]; what area of the city it would cover; and the extent it would need to involve charging certain vehicle types[3]. **We have no intention whatsoever to charge private car-users.** We believe the plans set out in this document are sufficient to tackle poor air quality arising from Sheffield's taxi fleet without the need to consider charging. The Study will actively consider and test the effect of charging the largest and most polluting vehicles such as buses, coaches, HGVs and OGVs, for driving through a Clean Air Zone.

2. **Buses** – improve the bus fleet and reduce emissions through replacement low-emission buses or retrofitting vehicles with cleaner engine technology.

3. **Taxis** – consult and work with the taxi operators to ensure we have the right standards in place; seek Government investment for a fund to help taxi operators/owners to improve their vehicles; and take action to reduce taxi idling in the city.

4. **Cars** – consider specific schemes to support people on lower incomes to change to lower emission vehicles, particularly where their job or responsibilities require unavoidable and frequent use.

5. **Idling** – roll out Anti-Idling Zones around schools and other sensitive locations.

6. **Freight/HGVs** – support the Eco Stars scheme, which helps commercial vehicle operators to reduce their emissions; promote the use of lower emission vehicles across our fleet.

7. **Promoting clean travel** – encourage more walking, cycling and active commuting across the city.

[2] The Feasibility study will be a joint study with Rotherham because it is part of Sheffield Urban Area.
[3] https://www.gov.uk/government/publications/air-quality-clean-air-zone-framework-for-england

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8. **Working with communities** – commission a Clean Air Community Champion Scheme.

9. **Industry** – make the most of technological improvements to reduce emissions and ensure that industry and businesses meet their legal obligations.

10. **Designing a clean air city** – build the ambition of clean air into our approaches to transport, economy, housing, planning and health and wellbeing.

The Air Quality Problem

11. We collect data on air quality from both national government (DEFRA[4]) and from our own monitoring stations.

12. Nitrogen Dioxide[5] (NO_2 gas) is currently of particular concern – and is the primary focus of this strategy – because, in common with many other parts of the UK, Sheffield is in breach of EU legal limits which should have been met by **1st January 2010**.

13. Fine particulate matter dust (PM_{10} or $PM_{2.5}$) is also an issue for Sheffield because, although the annual averages are significantly below the EU threshold, the **daily** average level is higher on more days per year at some locations than is acceptable by EU standards. Crucially, in addition, there is no safe limit for this pollutant.

14. DEFRA's data indicates that Sheffield has roads where NO_2 level in 2017 exceeds the legal limit[6]. NO_2 level on these roads in 2017 is **53µg/m³.** 40µg/m³ is the legal limit, according to the *UK plan for tackling roadside nitrogen dioxide concentrations*.

15. The map below shows our latest picture for NO_2 pollution levels. DEFRA data (black and grey lines) shows exceedances on particular routes in the city[7]. Our local information (red and orange points)[8] shows that air pollution is actually unacceptably high in **even more** areas than DEFRA indicate and that the local challenge is therefore significant. We do not shy away from this.

[4] Department for Environment, Food and Rural Affairs

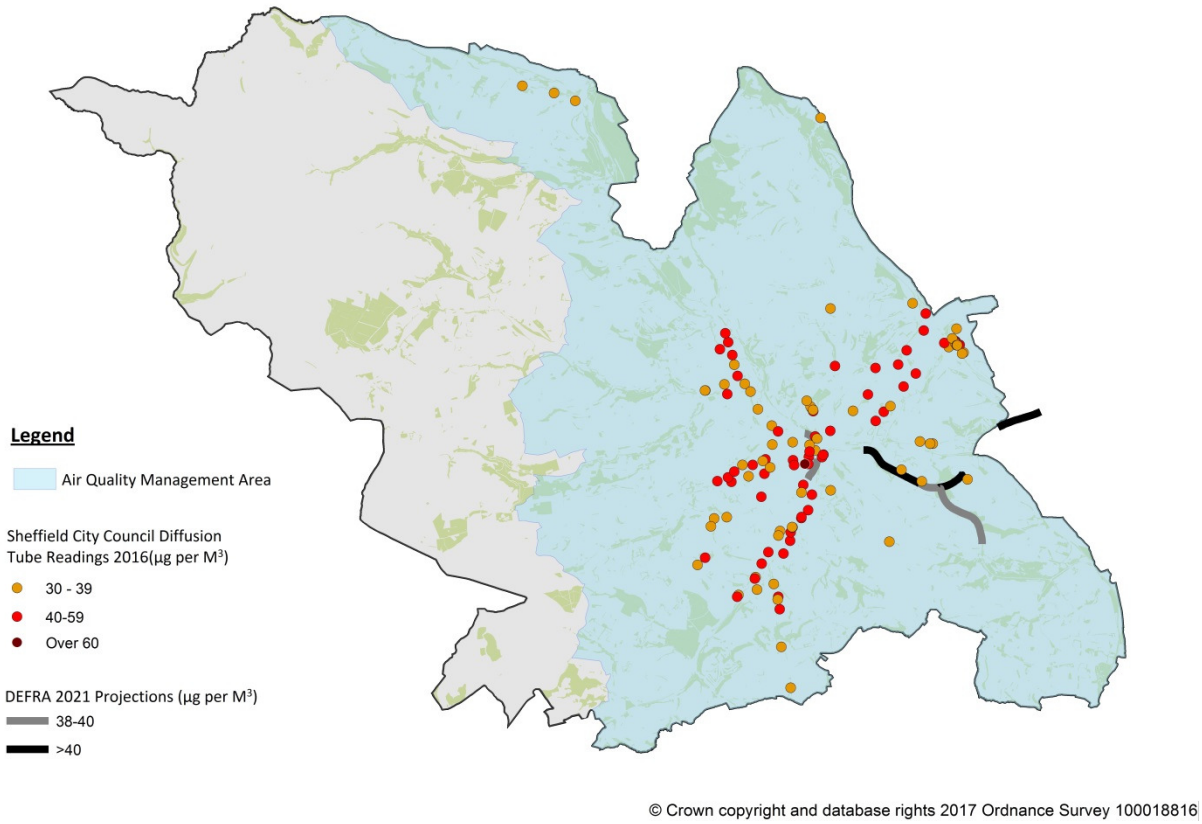
[5] Both NOx and NO2 are referred to in this document. NO2 is formed when NOx mixes with air. For the purposes of this strategy, the distinction between them is minimal.

[6] NO2 level on some Sheffield roads in 2017 is **53µg/m³.** 40µg/m³ is the legal limit. DEFRA (2017) *UK plan for tackling roadside nitrogen dioxide concentrations* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633022/air-quality-plan-detail.pdf

[7] According to Defra figures, the A630 – A57 Parkway (from M1 J33 to City Centre, and sections of the A61 Inner Ring Road breach the annual mean limit. However, other main arteries including the A57 near Richmond, the A61 by Sheffield Station and the A61 near Kelham Island/Savile Street (Derek Dooley Way) are only just under the annual mean limit by 1-2 points.

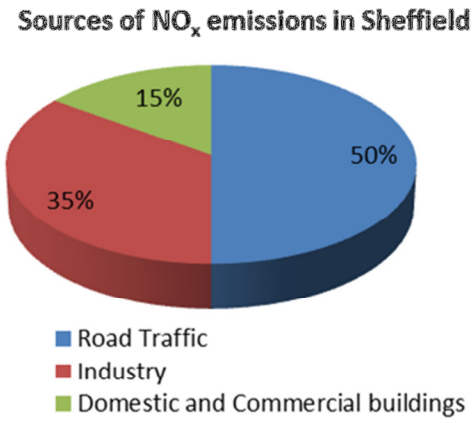
[8] based on the Low Emission Zone feasibility study and ongoing monitoring. Highest concentrations in Sheffield: A61 – Penistone Rd, Sheaf St, Queens Rd, Chesterfield Rd, Woodseats; A631 – Tinsley Roundabout, Bawtry Rd; B6388 – London Rd South; A621 - Abbeydale Rd; A6178 – Attercliffe Common, Sheffield Rd; A6109 – Savile St., Brightside Ln; A57 - Brook Hill, Whitham Rd, Fulwood Rd (S); Waingate / Haymarket, Arundel Gate; West Street, Barkers Pool; A625 – Ecclesall Rd South

Sheffield Air Quality - 2016 diffusion tube readings and 2021 DEFRA projections

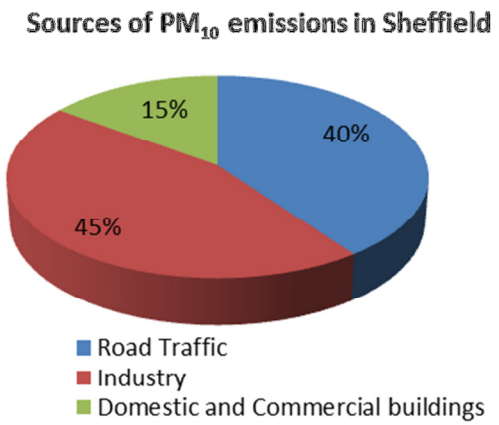


16. As can be seen from the maps, the key transport corridors into and out of the city centre are of particular concern. In addition, the train station is an area of high pollution. This is primarily caused by diesel trains as well as taxis at the station.

What are the sources of Air Pollution?



Source: AirViro Computer Model & Emissions Data Bases DA20.05 ref20, 12b



Source: Emissions Data Bases (EDB) using EDB DA20.05

17. The charts above show the sources of air pollution in Sheffield[9].

18. Road transport accounts for 50% of the nitrogen oxides emissions, with a further 35% from industrial sources.

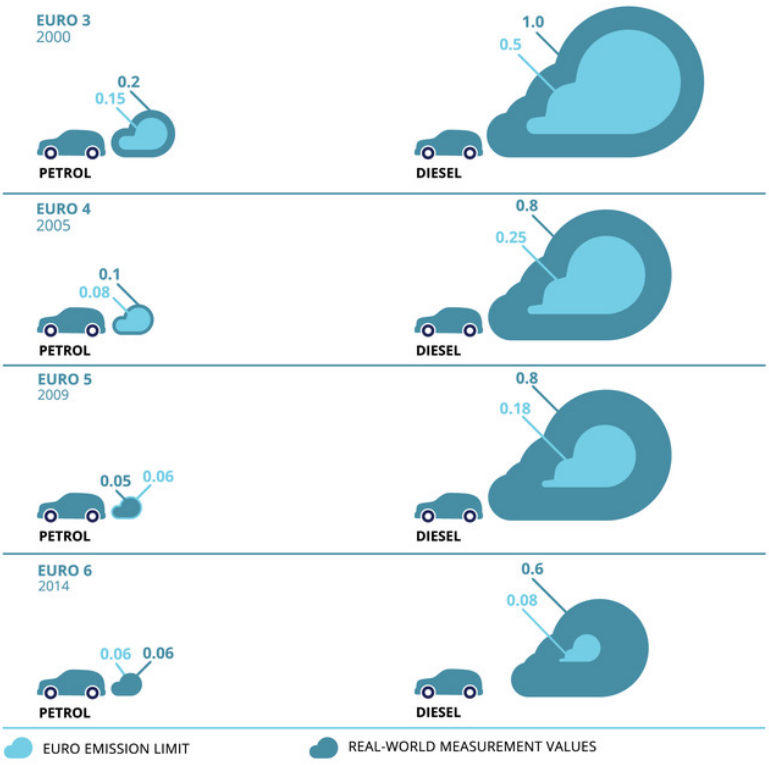
19. Sheffield's main polluting industrial process emissions are already tightly regulated, meaning that – although we cannot lose sight of this source of pollution and it is discussed further below – tackling the pollution caused by road traffic is the **logical priority** for improving air quality in the city. In addition, air pollution is very localised and the fact that people are in cars and other vehicles, walking along and living next to roads mean that the exposure of most people in their daily lives is to tailpipe emissions.

20. The most significant source of transport pollution is emissions from diesel vehicles. There has been technological progress which has reduced the amount of pollution created by newer diesel vehicles. However, in some vehicles, the emissions created by real-world driving has been shown to be much higher than the conditions measured by companies in their controlled laboratory settings, leading to greater pollution than claimed. Moreover, even though technology has led to reductions in NOx emissions, this doesn't mean that it is good enough. Our ambition for clean air now won't sit and wait for vehicles to get cleaner while people in Sheffield are breathing dangerous air and suffering as a result.

21. The diagram below shows the difference in NOx pollution for different categories of petrol and diesel cars[10]. It also shows the difference between the legal limits that car companies are expected to meet in order to label their model as Euro 6, for example, and the levels of emissions that are actually measured in real-world circumstances.

[9] These figures come from the Air Quality Action Plan 2015 Report, approved in July 2012. We have done no further source apportionment since then, however our 2013 LEZ Study confirm that transport emissions are the single biggest source of NOx in Sheffield, accounting for between 10 and 90% of emissions depending upon location.

[10] Euro 1 to Euro 6 refer to Europe-wide standards for tail-pipe emissions.



22. Our most recent studies[11] indicate that just to achieve legal compliance levels (and compliance is only a step towards the clean air for all that we want to achieve), we need to reduce NOx by 30% in the city.

23. It is estimated that a 20% reduction of those city-wide emissions could be achieved by making all buses and taxis Euro 6 standard or better. The remaining 10% reduction could be achieved by improving public sector fleets and increasing public transport use, active travel and public awareness of air quality issues.

24. The actions below reflect this, but will be tested, along with other solutions, by a further feasibility study to be carried out over the next few months.

[11] From a detailed Defra-funded Local Emission Zone Feasibility Study carried out in 2013.

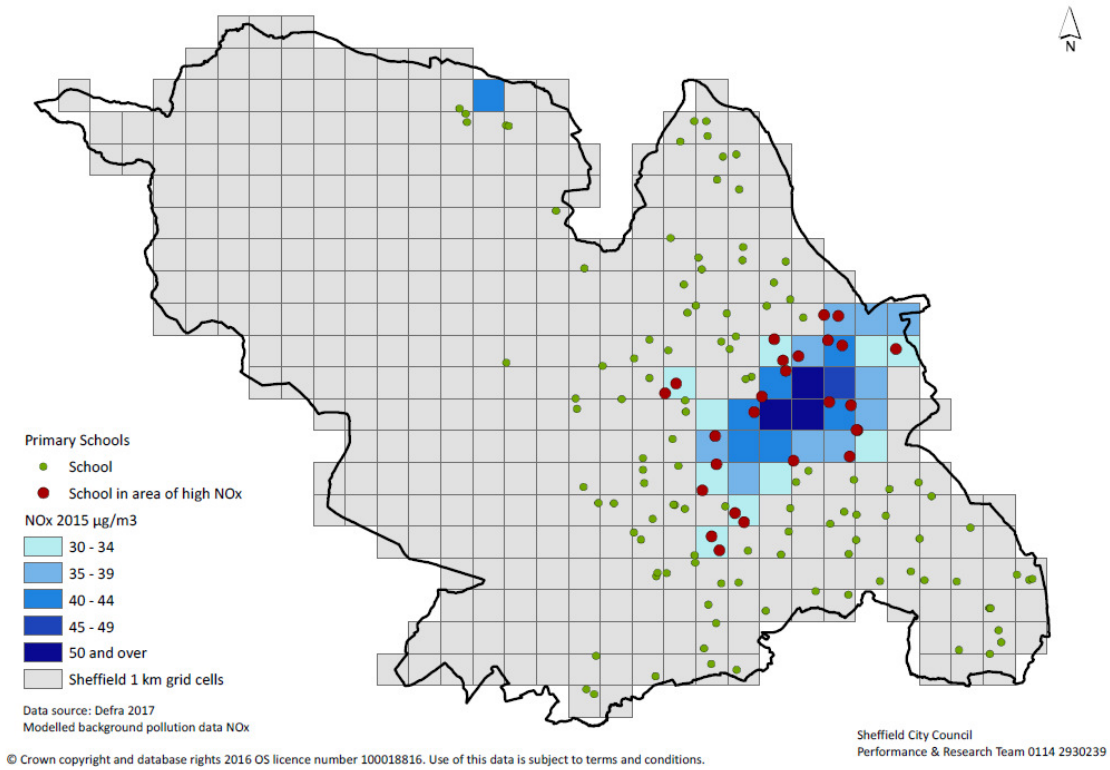
Health implications of Air Pollution

25. Poor air quality adversely affects human health, and has been estimated to account for up to 500 premature deaths per year in Sheffield[12].

26. Overall the adverse effects of poor air quality are such that it has a bigger impact on life expectancy than road traffic accidents or passive smoking.

27. It has short and long term health impacts, particularly for respiratory and cardiovascular health, including increased admissions to hospital.

28. The **impact of air quality on life expectancy and health is unequal**, with the young, the old, and those with pre-existing heart and lung conditions more affected. Individuals who are particularly sensitive and exposed to the most elevated levels of pollution have an estimated reduction in life expectancy of as much as nine years. There is also a link to people's incomes: those in poorer areas are more likely to be exposed to poor air quality[13].



29. The diagram above shows the **25 primary schools** (around one quarter) which are in areas of high nitrogen oxide pollution. It demonstrates that some of Sheffield's worst pollution hotspots are around schools.

[12] Sheffield City Council's interpretation of the Evidence of Robert Vaughn from DEFRA to Environment Select Committee 2010 accessed at http://www.parliament.uk/business/committees/committees-a-z/commons-select/environmentalaudit-committee/inquiries/parliament-2010/air-quality-a-follow-up-report/

[13] National Institute for Health and Care Excellence: https://www.nice.org.uk/guidance/ng70/chapter/Context.

30. Research shows that children exposed to air pollution could be stuck with smaller lungs and negative health effects for life[14]. Our vision is for children to have the best start in life, and this is being affected by their exposure to air pollution.

31. Air pollution has been shown to be worse inside cars than outside them, particularly for children who usually sit in the back[15]. Therefore, we need to improve people's awareness that the best way to protect their children is to make as many active journeys as possible for example, walking, scooting and cycling on the school run.

32. A key message from leading respiratory and cardiovascular physicians as well as environmental health experts is that modest reductions in pollution would lead to significant health gains.

[14] Royal College of Physicians 'Every breath we take: the lifelong impact of air pollution': https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution
[15] https://www.theguardian.com/science/2017/jun/12/smoking-in-cars-banned-but-children-still-inhale-toxic-fumes-in-backseats

Air quality, congestion and obesity – becoming a productive, healthy, clean air city

33. Finding solutions to improve Sheffield's air quality is inherently connected with addressing other challenges the city faces, and grasping the opportunities it has to grow its economy and to embed its position as the Outdoor City on the edge of the Peak District.

34. **Transport and infrastructure** - evidence indicates that the future additional development that the city needs to create housing and economic growth will place pressure on our existing transport infrastructure and by 2024 the congestion in the city will lead to significant and unreasonable delays, particularly at peak times. This is one of our key economic challenges.

35. A congested and unreliable road network will limit the capacity for future growth and lead to increased levels of stationary traffic and worsening levels of air quality. A holistic approach towards delivering infrastructure that supports a sustainable transport network that promotes and enables sustainable growth across the city is therefore essential.

36. The new Transport Vision[16] suggests a clearer categorisation of our road network where we need to intervene to alleviate congestion on the city's key arteries, improve air quality and provide the right infrastructure and services to incentivise more sustainable travel options.

37. **Healthy and Active Population** – improving the health of the city is not just about reducing air pollution. Finding cleaner vehicle solutions, for example with more electric cars, will help tackle air pollution, but it will not help people in Sheffield to realise the physical and mental health benefits of being more active. As part of our approach to improving air quality, we want to create a city where people want to walk, run and cycle more and where active travel is safe and pleasant[17].

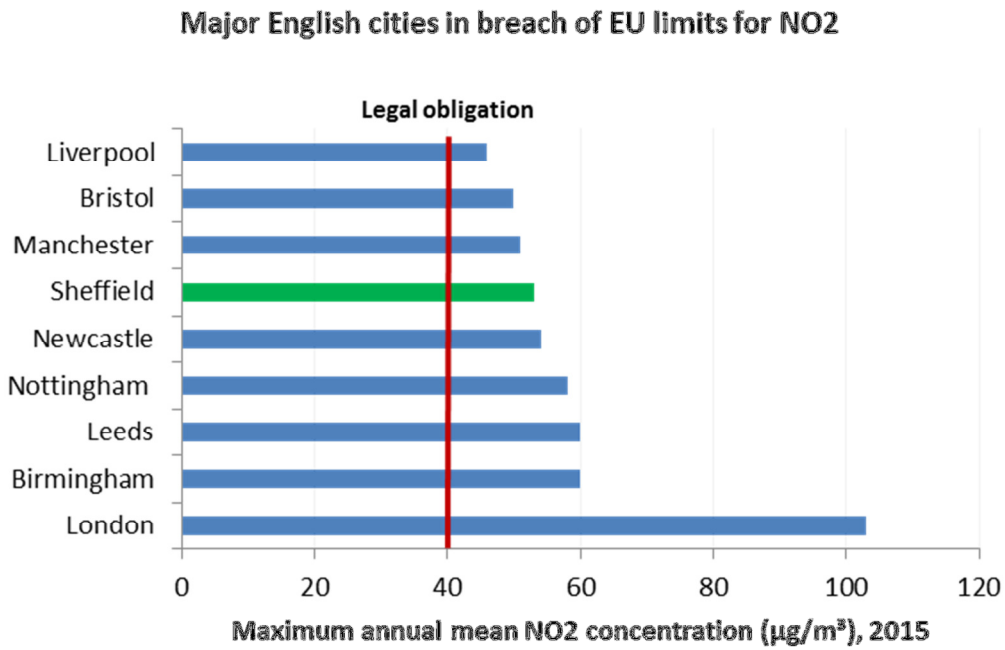
38. The opportunities for our economy of a clean air city are significant. The majority of these benefits lie in the fact that improving the long-term health and wellbeing of residents, through better air and a more active population, will mean that they will have fewer days off sick, and will cost less to the health service[18]. In addition, a city which is easier to get around using an efficient and sustainable public transport system and easy, safe types of active travel, is one which is well connected and attractive to businesses.

[16] Sheffield Transport Vision, Sheffield City Council Cabinet Report, 13 December 2017.

[17] Clean air is also a key aspect of our wider ambition to be a sustainable, green city, and many of the actions included in this strategy, particularly those relating to active travel and low emission vehicles, also support the actions within our Green City Strategy, which will be published in early 2018.

[18] https://uk-air.defra.gov.uk/assets/documents/reports/cat19/1511251135_140610_Valuing_the_impacts_of_air_quality_on_productivity_Final_Report_3_0.pdf

Sheffield in the national context



NB: the geographic reporting areas that DEFRA use are not identical to Local Authority boundaries - this chart is designed to provide an idea of the pollution challenge Sheffield faces in relation to other major cities in the UK.[19]

39. Analysis by Defra has identified 28 local authority areas, including Sheffield[20], which have the "*greatest problem with exceedances projecting beyond the next 3-4 years*". These are the 28 cities and towns in which at present, and over the coming years, one or more road breaches the annual mean limit for NO_2 (40µg/m³) if no action is taken.

40. Government have announced that all 28 named authorities will have legal duties to develop and implement a local plan to deliver compliance in the shortest possible time. We will be able to consider alternative measures to achieve compliance but these will need to be at least as effective as Government's model based on charging Clean Air Zones. Councils will need to:
    - undertake local assessments to consider the best options to achieve statutory NO_2 limits in the *shortest possible time*.
    - set out initial local action plans by the end of March 2018
    - agree final plans agreed by December 2018.

41. As part of the Government's announcement Sheffield has been required to undertake a feasibility study which will determine if a Clean Air Zone is required in Sheffield, what area of the city it would cover and whether or not it would need to involve charging certain vehicle types (this is explained in greater detail below).

[19] Source: Page 28 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/632916/air-quality-plan-technical-report.pdf
[20] Sheffield is part of the Sheffield Urban reporting area which includes both Sheffield and parts of Rotherham

How do we solve Sheffield's air quality problem?

42. Whilst the problem of air pollution, and nitrogen dioxide gas in particular, is a UK-wide issue that is facing many cities, we must identify solutions that work for people in Sheffield.

43. Our city is unique in its geography. We are a city of hills which needs to be considered when finding solutions to encourage active travel. In addition to our city centre, we have thriving neighbourhoods which have amenities that provide opportunities for people to do short active journeys locally, but need to have strong connections between them.

44. We have busy road arteries which, as has been shown above, are a source of a lot of the air pollution in the city. We need to find ways to help people move into and out of the city quickly and easily but in ways that support our clean air ambitions.

45. Solving the problem of air pollution splits into two categories:
    a. Tackling the sources of pollution and
    b. Creating a city where people choose public transport and active travel more often, thereby reducing emissions, improving people's health and making the city easier to move around (reducing congestion).

Tackling the sources of air pollution

Some of the actions below are short-term ones which are needed to make a difference urgently. Others are longer-term changes which will make Sheffield a future clean air city, reduce congestion and will enable people in Sheffield to lead healthier lives.

Feasibility Study and Consultation

46. Sheffield has been identified by the Government[21] as an area in exceedance for Nitrogen Dioxide (NO_2) gas which means that we will need to tackle vehicle emissions and become compliant with the European health based limits for this air pollutant in the 'shortest possible time'[22]. It will consider the impact of all vehicle types, including buses, taxis, light goods vehicles, heavy goods vehicles, motorbikes and private cars.

47. The vehicles that are of most concern to the Government are those which are most polluting – anything that is not Euro 6 for diesel or Euro 4 or higher for petrol. Broadly speaking, this means **petrol models made before 2006 and diesel models made before 2015**.

[21] National Air Quality Plan
[22] Environment Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2017

48. The Feasibility Study will determine *if* a Clean Air Zone is required in Sheffield[23]; what area of the city it would cover; and the extent it would need to involve charging certain vehicle types[24].

49. **We have no intention whatsoever to charge private car-users.**

50. Similarly, we believe the plans set out in this document are sufficient to tackle poor air quality arising from Sheffield's taxi, private hire and Hackney fleet, without the need to consider charging.

51. The Feasibility Study will actively consider and test the effect of charging the largest and most polluting vehicles such as buses, coaches, HGVs and OGVs, for driving through a Clean Air Zone.

We will carry out a local **Feasibility Study** to consider in detail the types of measures that we may have to introduce in Sheffield in order to improve air quality. We expect to set out our initial local action plan by the end of March 2018 with final action plans, and associated funding, agreed with Government by December 2018.

We will **consider the effects and impacts** on local residents, disadvantaged groups and businesses to ensure that we support everyone with the shifts we need to make better air for everyone.

We will consult with the city to **better understand what people think** about the specific interventions we could implement to improve air quality. This will take place in early 2018.

We will **update our statutory Air Quality Action Plan** once the local Feasibility Study has been completed to reflect the findings.

Buses

52. Buses make up 2% of road traffic but contribute 10% of the emissions and so represent a significant opportunity: by improving the bus fleet, we could significantly improve air quality in the city. In addition, encouraging higher levels of bus travel will also reduce air pollution.

53. There are approximately 450 buses operating within Sheffield, of which only 9% are currently Euro 6 (the lowest emission version of standard diesel engines). Although this is expected to rise to 18% during 2018 due to improvements by bus operators, it still demonstrates a significant challenge: buses operate throughout the day criss-crossing the city and the majority of the fleet falls below the emissions standards we wish and need to see.

54. The average cost of a new Euro 6 diesel bus is approximately £180K and retrofitting[25] to bring an older diesel bus to Euro 6 standard is approximately £15-20K. The exact investment needed will reflect the age of the fleet and the appropriateness of replacing and retrofitting, but this is a relatively small number of vehicles that we can easily target.

[23] The Feasibility study will be a joint study with Rotherham because it is part of Sheffield Urban Area.
[24] https://www.gov.uk/government/publications/air-quality-clean-air-zone-framework-for-england
[25] Retrofitting options can include converting engines to Liquefied Petroleum Gas (LPG), electric, hydrogen or Euro 6 standard diesel engines.

55. Councils in England do not presently control buses, so the actions below focus on working in partnership with bus companies in the city, and South Yorkshire Passenger Transport Executive (SYPTE) to deliver the changes that people in Sheffield need.

We will **work in partnership with the bus companies to improve the bus fleet and reduce emissions** through replacement low-emission buses or retrofitting vehicles with cleaner engine technology.

We will support this by **seeking investment to enable the retrofitting or replacement of the bus fleet** in the city. To work towards this, we have recently submitted a bid for funding to retrofit 117 buses in the city.

We will work in partnership with SYPTE and operators to make the bus a more attractive choice – **delivering improved journey time reliability and bus speed on our network** – encouraging people to switch from car to bus.

We will ensure that **buses are driven in an environmentally friendly way**, including actions to reduce idling.

As necessary, we will work with **the South Yorkshire Mayor (to be elected in 2018) to review the way bus services are delivered.** This would consider whether other operating models available to the Mayor[26], including Enhanced Partnerships and Franchising, would lead to better outcomes, including those for air quality.

Taxis

56. We currently have approximately 1,720 private hire taxis and 857 hackney cabs registered in the city. Taxis comprise 5% of the city's traffic but contribute 10% of its NO_x (the same as buses) because they are often old vehicles (this relates particularly to the hackneys) and they make short repeated journeys primarily within the city boundary. We estimate that taxi emissions are likely to reduce dramatically if the hackney cabs are retrofitted or replaced.

57. We recognise that many taxi drivers are self-employed and operating in a difficult environment, so we want to support taxi operators to deliver changes to clean up our air and improve the fuel efficiency of their businesses[27].

Taxis cannot currently be licensed in Sheffield if they do not meet particular standards.

We will **consult and work with the taxi operators** and other interested parties, to ensure we have the right standards in place, taking into account the wider implications of any changes that may be needed.

We will **seek investment from Government** for a fund to help taxi operators/owners to improve their vehicles. This will be particularly focused on the most polluting taxis.

[26] Within the Bus Services Act 2017
[27] The actions below will be subject to the decision-making processes of the appropriate Licensing Committee

We will **lobby Government** to remove the ability for private hire taxis licensed elsewhere, that do not meet our vehicle emissions and safety standards, to operate regularly within the city boundaries.

We will take action to **reduce idling of taxis**, particularly at the Sheffield Midland Station, which is the city's worst air pollution hotspot.

Freight/delivery

58. Heavy goods vehicles make up only about 2% of total traffic, but create 12% of the NOx emissions from traffic. Light goods vehicle make up 12% of total traffic and create 17% of the NOx emissions from traffic. The challenge with tackling these emissions is that many vehicles will be operating both inside and outside the city, and it is also an area where we have to work in partnership with other organisations and businesses.

59. We are therefore focusing our actions on improving public sector fleets and working with commercial vehicle operators to assist them to reduce air pollution.

60. In addition to our own fleet of vehicles, we contract with other organisations that run repeated journeys within the city boundary and which we are working with to reduce emissions from their vehicles.
    - Sheffield City Council: 998 vehicles in total; 430 of which are Euro 6 diesel/Euro 4 petrol or better.
    - Veolia (Waste Management): 65 vehicles in total; 38 of which are Euro 6 standard.
    - Amey (Highways Maintenance): 183 vehicles in total; 18 of which are Euro 6 standard[28].
    - In addition to our own fleet, and these major contractors, we have approximately 80 contracts for taxis, minibuses and delivery/maintenance vehicles associated with, for example, services for Looked After Children and vulnerable adults, home care support and furnished accommodation for council housing. We are currently reviewing our procurement approach for these to better promote the use of lower emission vehicles.

We will continue to **support the Eco Stars scheme**, which targets commercial vehicle operators (HGV, vans, buses and coaches) to assist and encourage them to reduce their emissions and improve their impact on the wider environment.

We will adopt a procurement approach that promotes the **use of lower emission vehicles** across our Sheffield City Council fleet.

We will work with other public sector organisations in the city, including the universities and NHS, to **improve fleets to reduce emissions**.

We will **lobby Government** to provide UK-wide incentives for big fleet operators to reduce emissions and to incentivise, at a local and national level, the movement of a greater proportion of heavy goods via rail or water.

[28] During 2018 Amey intend to replace approximately 20 Euro 5 diesel vans with electric vans and also introduce two electric/hydrogen vehicles.

We will support the University of Sheffield in their funding bid for a **Hydrogen-fuelled last-mile delivery system**.

Improving cars

61. We now know that diesel cars are a major contributor to NOx emissions in the city. We are seeing a downward market shift nationally in the demand for new diesel cars as a result of greater awareness of air pollution issues. However, there are still a significant number of older diesel cars in the city. Our data suggests that 41% of vehicles registered in Sheffield in 2016 were diesels, almost 30% of private cars are older diesels and there are a lot of older and more polluting petrol private cars on our roads too.

62. Our actions regarding private cars will be tested in detail within the feasibility study, and in the meantime we will focus on educating people, lobbying Government to provide effective solutions, and investigating how best to support people in Sheffield – particularly those who are vulnerable and/or on lower incomes – to change to lower emission vehicles.

We will reinforce and strengthen our Sheffield Air Aware Campaign[29] to help people to **choose lower emission vehicles**.

We will **lobby Government** to provide effective support for people to move to lower emission vehicles.

We will consider, as part of our Feasibility Study and Clean Air consultation, specific schemes to **support people on lower incomes** to change to lower emission vehicles, particularly where their job or responsibilities require unavoidable and frequent use e.g. carers.

Anti-idling

63. We've all done it – sat with the engine running while a friend dashes into a shop or while the children finally make their way out of school at the end of the day. But, 'idling' – sitting stationary with the engine running – is contributing to our air quality challenge, wasting fuel and wearing out engines.

64. There is clear evidence that anti-idling initiatives reduce vehicle idling times and emissions, and improve air quality, especially near schools with high levels of traffic[30]. Vehicles that are turned off do not use fuel or emit the air pollutants and greenhouse gases when idling. Several idle reduction technologies, such as new cars which automatically switch off when stationary, have been shown to significantly reduce fuel use and emissions of pollutants such as NOx, PM, and also CO_2.

65. We carried out a consultation on vehicle idling in Sheffield from July to August 2017. Over 1000 people responded to it, with the majority of the respondents in Sheffield agreeing that:

[29] https://www.sheffield.gov.uk/home/pollution-nuisance/air-aware
[30] http://whatworksforhealth.wisc.edu/program.php?t1=109&t2=7&t3=62&id=647

- Children and those vulnerable to the effects of air pollution should be protected from the sources of air pollution
- Vehicle idling is a problem outside schools, care homes, and other locations
- Both education (campaigns to encourage behaviour change) and enforcement (on-the-spot fines issued in formal "no vehicle idling" zones) should be used to tackle the problem
- Both primary and secondary schools were seen as the most important places to establish "no vehicle idling" zones. Hospitals were also ranked highly, with mixed responses to care homes, bus stations, bus stops, taxi ranks and train stations.
- 46% of those who responded listed car as their main way of travelling around the city, walking was the second most common (18%), followed by bus (17%), cycle (13%), tram (4%) and train (1%).

66. We have listened to this concern about air quality near schools, hospitals and other sensitive locations, and we will address it through the establishment of **Anti-Idling Zones**.

We will roll out **Anti-Idling Zones around schools and other sensitive locations**.

We will take a **strong, campaign-led approach to educating people** about the benefit of switching off their engines, and other aspects of air quality, using the Air Aware Campaign.

We will **reinforce Anti-Idling Zones** through appropriate enforcement action and use the proceeds from enforcement to support our broader transport vision.

Railways

67. Pollution from diesel trains is a problem for Sheffield which we locally have little control over. Sheffield currently has no electrified lines, and is reliant on diesel trains. Unfortunately, a high proportion of these trains are very old and highly polluting following years of under-investment in rolling stock on the Northern franchise.

We will continue to actively, assertively and consistently **lobby government** to reverse its decision to abandon plans to electrify the Midland Mainline.

We will continue to apply pressure to the government to ensure the **Sheffield Midland Station is appropriately upgraded** in a way that improves air quality.

Industrial Sources

68. Industry is largely regulated using IPPC (Integrated Pollution Prevention and Control) legislation, with significant improvements being made in recent years. Efforts to further control emissions by upgrading processes are ongoing, with continued improvements being required as new pollution reduction technology is available.

We will **continue to work with industry and businesses** in Sheffield to help them make the most of technological improvements to reduce emissions and to ensure that they meet their legal obligations.

Domestic and Commercial sources

69. Air pollution from emissions associated with domestic (and commercial) space and water heating are already being tackled using a number of regulatory powers. Domestic emissions include those from central heating boilers and wood burning stoves. Whilst gas-fuelled central heating boilers do emit gases, these are a much lesser health concern than the nitrogen oxide gas that come from other sources.

70. However, wood burning stoves may be a significant localised contribution to air pollution (specifically fine particle dust), particularly if the wood does not meet appropriate standards. The Mayor of London has recognised wood-burning stoves as a particular concern and is seeking greater controls to reduce the pollution from them.

71. Most of Sheffield was declared a Smoke Control Area between the 1960s and 1980s. Being a smoke-free city means that anybody using a non-approved wood burning stove or non-approved fuel for heating could be committing an offence, which can cost the offender up to £1,000.[31]

72. The Government is due to launch a comprehensive Clean Air Strategy in Spring 2018 which will consider the wider implications and potential interventions for domestic sources of air pollution.

73. As part of our ambition to be a Green City, we are aiming to ensure that all our city's homes are energy efficient to reduce fuel poverty and we are working with partners to expand our energy networks and increase the level of renewable and low-carbon energy generation in the city.

We will work with city partners to **better understand the scale of domestic air pollution**, in particular that created by wood-burning stoves.

We will raise awareness of the importance of using **authorised 'smokeless' fuel** in stoves.

Where we have evidence that non-approved appliances are being used and/or unauthorised fuels are being burnt we will **use the full range of enforcement powers** available to achieve regulatory compliance.

Motorways

74. We have worked closely with Highways England, who recently implemented Smart Motorway All Lane Running on the M1, in order to ensure that air quality issues in Sheffield, particularly in the Tinsley area, are improved. The scheme is implementing a maximum mandatory 60mph speed limit between Junctions 28 to 35a (weekday peak periods) to mitigate air quality impacts.

We will **continue to work with Highways England to deliver solutions to M1 emissions**, which might include installing protective screens to help keep motorway emissions away from residential areas, extending the times that a reduced speed limit operates and other options.

[31] http://www.care4air.org/care4air-facts/smoke-control-area-map/

Designing a clean air city

75. Our ambitions for air quality and the approach and interventions we take are fundamentally bound to our overall ambitions for the city. We want to ensure that our future homes, neighbourhoods and employment centres are built in a sustainable way and are easy to get to via low emission active or public transport.

76. At a more basic level, building and infrastructure construction leads to dust and particulates from demolition and site preparation, and exhaust emissions from machinery, and we will better use our planning powers to ensure that those involved in construction use best practice to limit the impacts of their work on air quality.

We will **build the ambition of clean air** into our approaches to transport, economy, housing, planning and health and wellbeing.

When we use our planning powers to **assess proposed developments we will ensure that air quality impacts are fully considered** and that opportunities to improve air quality are secured according to current best practice guidance[32]. Planning applications will also need to consider the cumulative effects of other existing and planned development where appropriate.

We will continue to **assess and mitigate emissions from construction sites** by using current best practice guidance[33].

Trees and Green Screens

77. Trees may remove gaseous air pollution (like Nitrogen Dioxide) by absorbing it into leaves, and can remove particulate matter dust (such as PM_{10}) by intercepting airborne particles (although the majority of this dust stays on leaves and bark and may eventually disperse back into the air)[34].

78. Sheffield is one of the greenest and most wooded cities in Europe[35]. There are approximately 2 million trees in the whole city, an estimated 36,000 of which are situated on streets. In the case of these street trees, they are replaced only if they are dead, dying, diseased, damaging (to footpaths, private property or roads) or discriminatory (obstructing footpaths in a way that stops some people, especially those who are less mobile, being able to use it). Through the Streets Ahead programme, any street tree that is removed is being replaced on a 1 for 1 basis, and over the lifetime of that programme an additional 600 trees will have been planted to increase the city's overall stock of street trees.

79. Although trees can have a positive impact on air quality, they alone cannot solve the air pollution crisis the city faces, as demonstrated by the fact that Sheffield is Britain's greenest city and still has significant pollution exceedances. It should also be noted that trees do not always have a positive impact on air pollution and in fact the National Institute for Health and Care Excellence (NICE) advises

[32] Institute of Air Quality Management/Environmental Protection UK guidance for air quality assessment.
[33] Institute of Air Quality Management Guidance on the Assessment of Dust from Demolition and Construction.
[34] Defra: https://laqm.defra.gov.uk/laqm-faqs/faq105.html
[35] Sheffield Trees and Woodlands Strategy: https://www.sheffield.gov.uk/home/parks-sport-recreation/trees-woodlands-strategies.html

that trees can restrict street ventilation causing poorer air quality[36], for example where tree canopies create tunnels that trap pollution closer to the ground instead of letting it disperse.

80. Our focus in this strategy is therefore on tackling the *sources* of air pollution themselves and facilitating more journeys by public transport and active travel, particularly to and around sensitive locations such as schools. Where necessary, it may be appropriate to consider the benefit of green screens[37] (such as certain types of hedges) where they can shelter vulnerable people from effects of pollution whilst still allowing it to disperse upwards.

We will consider using green screens to help **protect sensitive locations such as schools** from the impacts of air pollution.

Better understanding the data and fostering innovation

81. Part of tackling air pollution lies in deeper understanding of the problem so that we can identify which interventions are likely to be most effective and then test their impact. We also know that there is a huge amount of expertise in the city, for example, in the universities, in the technological and digital industries and among ordinary people that will help us find innovative solutions to the air pollution challenge the city faces.

82. The University of Sheffield is in the process of setting up the **Urban Flows** project – an urban observatory which will provide a more sophisticated understanding of air pollution using a variety of sensors across the city. This work will help us to understand, for example, the impact of weather on air pollution and will allow us to better test the effectiveness of pollution reduction interventions. The Urban Flows project will foster innovation by making its data freely available online and by setting open challenges to encourage those in the city and further afield to develop solutions to the city's challenges.

83. Clean air data is not just about the technical details of pollution. To create a clean air city we need to understand the attitudes and experiences of different people in the city towards air quality issues, public transport and active travel and we are working with Sheffield Hallam University and others to build a better understanding and work towards clean air for all.

We will work with city partners such as the University of Sheffield and Sheffield Hallam University to **make the most of the expertise in the city** to tackle air pollution.

[36] https://www.nice.org.uk/guidance/ng70
[37] http://www.londonair.org.uk/london/asp/news.asp?newsid=NKGreenscreen2017

Helping people choose public transport and active travel

Education/awareness-raising

84. Education and awareness-raising is a key part of creating a clean air city, to help people in Sheffield understand the very real impact that every single one of them has on the air around them. The Air Aware campaign is well-established and has worked particularly with school children to encourage them to walk, scoot or cycle more while encouraging their families to do the same.

85. We want everyone in Sheffield to understand their impact on air quality and to see how they can be part of the solution by making more active journeys and using public transport more.

We will use a strong campaign-led approach in the city through the **Air Aware campaign** to raise awareness of the importance of air quality and help people make decisions to choose less polluting vehicles and to make more journeys via public transport and active travel.

In line with our Transport Strategy, we will establish a series of "Congestion Conversations" to fully understand any areas where congestion hotspots could be tackled with some small changes.

We will commission a **Clean Air Community Champion Scheme** where volunteers can pledge to make simple changes that will make Sheffield's air cleaner and help the people in their community to do the same.

20mph Speed Limits

86. Lower speeds help to make communities feel safer and more attractive to walkers and cyclists. Many other parts of the city already have 20mph zones.

87. In addition to promoting active travel, there is also an important air quality dimension to 20mph schemes – there is evidence that cars driving at lower speeds produce less harmful pollution relative to their speed[38].

We will establish a **20mph speed limit** across the city centre.

We will continue to implement our 20mph Speed Limit Programme across the city.

Promote cycling

88. We want to make it easier for people to choose cycling for short trips as a natural choice. The specific actions associated with this will be covered in greater detail in our forthcoming Transport Strategy.

[38] https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf

As part of the Transport Strategy, we will **set out a clear delivery plan to encourage further uptake of cycling and walking across the city**. The focus will be on route development, improving the environment and making electric bikes more accessible to reduce the barriers to cycling.

We will **continue to make improvements to the cycle networks** that will focus on providing safe cycle routes based on international best practice. These will be focused on areas where evidence indicates that people are more likely to switch to cycling for shorter journeys, and will be supported by more cycle parking.

We will **support the introduction of the first dockless bike scheme to Sheffield** to make it easier for people to choose cycling to get around.

We will **run adult cycle training and free bike loans** (including electric bikes) to improve access to cycles.

We will continue to work with the British Cycling Partnership to **run guided rides, city rides and local pop-up rides** and we will develop a number of **cycling hubs** to support these activities.

Parking

89. As a city it is important that we manage parking demand whilst incentivising lower emission forms of travel.

We will develop a **new parking strategy, which will reflect our aims to manage parking demand and incentivise lower emission forms of travel**. As part of this we will:

- Review the parking permits available, including Green Parking Permit scheme, to ensure that they reflect the latest technological improvements and are incentivising low emission vehicles.
- Review our Sheffield City Council employee parking schemes to encourage public transport, active travel and other low emission forms of transport.
- Review parking across the city, including areas that are currently unregulated
- Identify, review and implement a range of parking encouragements and disincentives to improve air quality.

Supertram Network

90. Supporting and extending the Supertram network will be an aspiration within the Transport Strategy. The existing tram system is clean, safe and attractive, but it currently only reaches 18% of Sheffield's residents.

We will secure the **maintenance and refurbishment of the existing Supertram** system over the next year[39].

We will **explore the longer-term feasibility of extending the network**.

[39] Over the next year we will work with the Sheffield City Region to invest in track replacement and to submit a business case to Government for major refurbishment of the network.

We will work with South Yorkshire Passenger Transport Executive to support the **new Tram Train pilot between Sheffield and Rotherham** due to start running in 2018 as a low emission alternative to car travel.

City leadership

91. Achieving clean air for everyone in Sheffield has to be a citywide responsibility. The City Council needs to work in partnership with public and private organisations in the city, as well as individuals and community groups to ensure that we find the best solutions for Sheffield and hold all our institutions to account.

We will work with key public and private organisations in the city, including businesses, the universities and NHS, to establish **citywide clean air solutions and partnerships**. This will align with other partnerships in the city.

Clean Air Actions Summary

	Action	Timescale	Lead
Feasibility Study and Consultation	We will carry out a local Feasibility Study to consider in detail the types of measures that we may have to introduce in Sheffield in order to improve air quality.	We expect to set out our initial local action plan by the end of March 2018 with final Plans agreed with Government by December 2018.	Head of Strategic Transport and Infrastructure
	We will consider the effects and impacts on local residents, disadvantaged groups and businesses to ensure that we support everyone with the shifts we need to make better air for everyone.	We expect to set out our initial local action plan by the end of March 2018 with final Plans agreed with Government by December 2018.	Head of Strategic Transport and Infrastructure
	We will consult with the city to better understand what people think about the specific interventions we could implement to improve air quality. This will take place alongside Transport Vision consultation.	Early 2018.	Head of Strategic Transport and Infrastructure
	We will update our statutory Air Quality Action Plan once the local Feasibility Study has been completed to reflect the findings.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Buses	We will work in partnership with the bus companies to improve the bus fleet and reduce emissions through replacement low-emission buses or retrofitting vehicles with cleaner engine technology.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will support this by seeking investment to enable the retrofitting or replacement of the bus fleet in the city. To work towards this, we have recently submitted a bid for funding to retrofit 117 buses in the city.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will work in partnership with SYPTE and operators to make the bus a more attractive choice – delivering improved journey time reliability and bus speed on our network – encouraging people to switch from car to bus.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will ensure that buses are driven in an environmentally friendly way, including actions to reduce idling.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	As necessary, we will work with the South Yorkshire Mayor (to be elected in 2018) to review the way bus services are delivered. This would consider whether other operating models available to the Mayor, including Enhanced Partnerships and Franchising, would lead to better outcomes, including those for air quality.	Short-Medium term (under 5 years)	Head of Strategic Transport and Infrastructure

	Action	Timescale	Lead
Taxis	Taxis cannot be licensed in the city if they do not meet particular standards. We will consult and work with the taxi operators and other interested parties, to ensure we have the right standards in place, taking into account the wider implications of any changes that may be needed.	Short-term (under 2 years)	Chief Licensing Officer & Head of Licensing
	We will seek investment from Government for a fund to help taxi operators/owners to improve their vehicles. This will be particularly focused on the most polluting taxis.	Short-term (under 2 years)	Chief Licensing Officer & Head of Licensing
	We will lobby Government to remove the ability for private hire taxis licensed elsewhere, that do not meet our vehicle emissions and safety standards, to operate regularly within the city boundaries.	Short-term (under 2 years)	Chief Licensing Officer & Head of Licensing
	We will take action to reduce idling of taxis, particularly at the Sheffield Midland Station.	Short-term (under 2 years)	Chief Licensing Officer & Head of Licensing
Freight/delivery	We will continue to support the Eco Stars scheme, which targets commercial vehicle operators (HGV, vans, buses and coaches) to assist and encourage them to reduce their emissions and improve their impact on the wider environment.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will adopt a procurement approach that promotes the use of lower emission vehicles across our Sheffield City Council fleet.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will work with other public sector organisations in the city, including the universities and NHS, to improve fleets to reduce emissions.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will support the University of Sheffield in their funding bid for a Hydrogen-fuelled last-mile delivery system	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Improving Cars	We will use the Air Aware Campaign to help people to choose lower emission vehicles.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will lobby Government to provide effective support for people to move to lower emission vehicles.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will consider, as part of our Feasibility Study and Clean Air Strategy consultation, the support available to people on lower incomes to change to lower emission vehicles, particularly where their job or responsibilities require frequent use e.g. carers.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Anti-idling	We will roll out Anti-Idling Zones around schools and other sensitive locations.	Short-term (under 2 years)	Director of Public Health / Head of Strategic Transport and Infrastructure
	We will take a strong, campaign-led approach to educating people about the benefit of switching off their engines, and other aspects of air quality, using the Air Aware Campaign.	Short-term (under 2 years)	Director of Public Health / Head of Strategic Transport and Infrastructure

	Action	Timescale	Lead
	We will reinforce Anti-Idling Zones through appropriate enforcement action and use the proceeds from enforcement to support our broader transport vision.	Short-term (under 2 years)	Director of Public Health / Head of Strategic Transport and Infrastructure
Railways	We will continue to actively, assertively and consistently lobby government to reverse its decision to abandon plans to electrify the Midland Mainline.	Short to Medium-term (under 5 years)	Head of Strategic Transport and Infrastructure
	We will continue to apply pressure to the government to ensure the Sheffield Midland Station is appropriately upgraded in a way that improves air quality.	Short to Medium-term (under 5 years)	Head of Strategic Transport and Infrastructure
Industry	We will continue to work with industry and businesses in Sheffield to help them make the most of technological improvements to reduce emissions and to ensure that they meet their legal obligations.	Ongoing	Head of Environmental Regulation
Domestic Sources	We will work with city partners to better understand the scale of domestic air pollution, in particular that created by wood-burning stoves.	Short-term (under 2 years)	Head of Environmental Regulation/Head of Strategic Transport and Infrastructure
	We will raise awareness of the importance of using authorised 'smokeless' fuel in stoves.	Short-term (under 2 years)	Head of Environmental Regulation/Head of Strategic Transport and Infrastructure
	Where we have evidence that non-approved appliances are being used and/or unauthorised fuels are being burnt we will use the full range of enforcement powers available to achieve regulatory compliance.	Ongoing	Head of Environmental Regulation
Motorways	We will continue to work with Highways England to deliver solutions to M1 emissions, which might include installing protective screens to help keep motorway emissions away from residential areas, extending the times that a reduced speed limit operates and other options.	Short to Medium-term (under 5 years)	Head of Strategic Transport and Infrastructure
Designing a Clean Air City	We will build the ambition of clean air into our approaches to transport, economy, housing, planning and health and wellbeing.	Short to Medium-term (under 5 years)	All

	Action	Timescale	Lead
	When we use our planning powers to assess proposed developments we will ensure that air quality impacts are fully considered and that opportunities to improve air quality are secured according to current best practice guidance[40]. Planning applications will also need to consider the cumulative effects of other existing and planned development where appropriate.	Short-term (under 2 years)	Chief Planning Officer
	We will continue to assess and mitigate emissions from construction sites by using current best practice guidance.	Short-term (under 2 years)	Chief Planning
Trees and Green Screens	We will consider using green screens to help protect sensitive locations such as schools from the impacts of air pollution.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Better understanding the data and fostering innovation	We will work with city partners such as the University of Sheffield and Sheffield Hallam University to make the most of the expertise in the city to tackle air pollution.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Education / Awareness Raising	We will use a strong campaign-led approach in the city through the Air Aware campaign to raise awareness of the importance of air quality and help people make decisions to choose less polluting vehicles and to make more journeys via public transport and active travel.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will commission a Clean Air Community Champion Scheme where volunteers can pledge to make simple changes that will make Sheffield's air cleaner and help the people in their community to do the same.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
20mph Speed Limits	We will establish a 20mph speed limit across the city centre. We will continue to implement our 20mph Speed Limit Programme across the city.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Promote cycling	As part of the Transport Strategy, we will set out a clear delivery plan to encourage further uptake of cycling and walking across the city. The focus will be on route development, improving the environment and making electric bikes more accessible to reduce the barriers to cycling.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure

[40] Institute of Air Quality Management/Environmental Protection UK guidance for air quality assessment.

	Action	Timescale	Lead
	We will continue to make improvements to the cycle networks that will focus on providing safe cycle routes based on international best practice. These will be focused on areas where evidence indicates that people are more likely to switch to cycling for shorter journeys, and will be supported by more cycle parking.	Short to Medium-term (under 5 years)	Head of Strategic Transport and Infrastructure
	We will support the introduction of the first dockless bike scheme to Sheffield to make it easier for people to choose cycling to get around.	December 2017	Head of Strategic Transport and Infrastructure
	We will run adult cycle training and free bike loans (including electric bikes) to improve access to cycles.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will continue to work with the British Cycling Partnership to run guided rides, city rides and local pop-up rides and we will develop a number of cycling hubs to support these activities.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
Parking	We will develop a new parking strategy, which will reflect our aims to manage parking demand and incentivise lower emission forms of travel.	Short-term (under 2 years)	Transport, Traffic & Parking Services Business Manager / Head of Strategic Transport and Infrastructure
Supertram	We will secure the maintenance and refurbishment of the existing Supertram system over the next year.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
	We will explore the longer-term feasibility of extending the network.	Short to Medium-term (under 5 years)	Head of Strategic Transport and Infrastructure
	We will work with South Yorkshire Passenger Transport Executive to support the new Tram Train pilot between Sheffield and Rotherham due to start running in 2018 as a low emission alternative to car travel.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure
City leadership	We will work with key public and private organisations in the city, including businesses, the universities and NHS, to establish citywide clean air solutions and partnerships. This will align with other partnerships in the city.	Short-term (under 2 years)	Head of Strategic Transport and Infrastructure