

GLA response to EFRA call for evidence on Air Quality, July 2020

Introduction:

This submission is on behalf of the Mayor of London and the Greater London Authority.

London suffers from some of the worst air quality in the UK, but in recent years has also seen the most rapid and widespread improvements in the UK, often in the absence of practical or financial support from the Government.

Summary:

Under question 1 we have summarised our initial response to the original consultation on the Clean Air Strategy (CAS). The key point is that, despite some good ideas, we believe that the CAS was limited in ambition and flawed in detail. Even more disappointingly the delivery on the CAS has been lacking in energy or focus and many of the simplest actions have not been sufficiently progressed.

Under question 2, we summarise our concerns about the proposed Environment Bill. We believe that the bill fails on its own terms, creating a framework for targets that can too easily watered down or dropped, backed by a watchdog that is underpowered and not sufficiently independent of Government.

Under question 3, we have outlined the significant progress that has been made in improving London's air quality, especially for nitrogen dioxide. This has been largely driven by Mayoral policy, including introducing the world's first Ultra Low Emission Zone. This is evidenced by the fact that between 2016 and 2019 the reduction in annual average nitrogen dioxide at roadside sites in central London was 5 times the national average reduction. This is a strong indication the most significant improvements in London have been driven by local (as opposed to national) policy. However, much of London still exceeds the legal limit for nitrogen dioxide and much more action is needed to tackle particulate matter.

Under question 4 we have outlined the emerging evidence of the association between COVID-19 and air pollution and the fact that disadvantaged communities and non-white ethnic groups have been disproportionately

affected by the pandemic. Whilst more research is needed to investigate the relationship between air pollution, inequality and COVID-19, we have provided an overview of the established evidence linking air pollution exposure to social inequalities in London.

Under question 5 we have identified the key short-term risk as a rapid return to a car dominated world. The most important opportunities are in the medium and long term where there are significant gains to be made from a green recovery that prioritises good quality jobs to support the changes we need to improve air quality.

Q1: Did the UK Government's 2019 Air Quality Strategy set out an effective and deliverable strategy to tackle the UK's poor air quality and address the issues raised in our 2018 report? Has the UK Government put in place the necessary structures and resources to deliver its strategy?

We do not believe that the Government's 2019 Air Quality Strategy (CAS) sets out an effective strategy to tackle poor air quality. The committee will be able to see for itself the extent to which its 2018 recommendations have been ignored, watered down or delayed in the CAS.

The current context of a pandemic outbreak of an acute respiratory illness (COVID-19) does not necessarily change the need for bold action to improve air quality, but it does serve to demonstrate the urgency of the issue and illuminate the extent of health impacts of pollution. COVID-19 has also thrown existing social and health inequalities into sharp relief. The pattern of these inequalities is similar to well known, long standing inequalities in exposure to air pollution and there is growing evidence that the two are directly linked. Delay in the implementation of the CAS and the already missed opportunities to act are known to be having real impacts on the quality and length of people's lives now.

Prior to the publication of the CAS the GLA actively participated in the Government's consultation exercise. Our full consultation response is appended, but in summary we assessed the CAS and found it lacking in many key areas. Below is a review of our concerns about each chapter of the CAS and an indication of whether we are aware of any progress on the key commitments.

Chapter 1 Understanding the problem:

The key commitments in this chapter were £10 million for improved data collection and analysis and improved public access to data.

Monitoring is a vital resource for not only understanding the current problem but also for identifying which measures work. There is no central mechanism for ensuring that adequate monitoring is available, and the CAS does not attempt to rectify this issue either through funding or through research and development into high performing low-cost sensors.

The Mayor of London established, with philanthropic support, the Breathe London project¹, which combines low cost sensors with advanced data analytics and is one demonstration of what can be done to both improve air quality data and drive innovation. For example, the project used air quality sensors included in backpacks to understand children's exposure to air pollution on their way to school. This project received no support from Defra and the Mayor has argued that Government should be seeking to adopt a suitably ambitious and innovative approach for the additional funding, with a particular focus on vulnerable places like schools. The Mayor has now taken over the funding of the project given its importance.

London also has 120 reference quality automatic monitors. The availability of dense, high quality data is hugely valuable for developing and assessing policy interventions but also underpins the Mayor's forecasting and alerts system².

The majority of monitoring in London is delivered by the Boroughs without central support or funding. This means much of the network is permanently at risk, and with it both the vital data resource it provides and the operation of the alerts system.

We strongly support the sharing of data with the public, as well as providing people with the tools they need to make use of it. This is a key objective in the London Environment Strategy to enable people to manage their exposure to air pollution whilst efforts continue to tackle it. In London we continue to

¹ <https://www.breathelondon.org/>

² <http://www.londonair.org.uk/LondonAir/Forecast/>

publish details of our modelling work³, live air quality data⁴, resources for the public⁵ and issue public alerts during high and moderate pollution episodes as well as a wealth of other data and information. We are not aware of any improvement in the quantity or quality of national government data sharing following on from the CAS.

Chapter 2, Protecting the Nation's Health:

We broadly welcomed the commitments in this chapter, although we have seen little progress on any of them. Specific issues with the proposed PM_{2.5} target and devolution commitments are discussed under question 2 below.

A number of the commitments in this chapter are related to providing and improving air quality alerts and other public information. The national system remains severely limited; although forecasts are given about half a day ahead through an automated twitter feed, the majority of the information has to be sought out manually and it is not possible for the general public to sign up for alerts.

The national alerts⁶ are only issued *after* widespread high levels have been recorded and then only to a specified group of stakeholders. Defra does not publish a list of who these stakeholders are.

By contrast London's alert system uses forecasts to issue alerts before moderate, high or very high episodes develop, enabling individuals to take appropriate preventative or protective action.

When a "moderate" pollution episode is forecast the alert is published on the GLA website, through the @LDN_environment twitter account and by direct email to the London boroughs and over 3,300 schools. Individuals and organisations that have signed up to the AirTEXT service also receive text message alerts.

When a "high" or "very high" pollution episode is forecast the response is scaled up to maximise the reach to as many Londoners as possible. This includes utilising over 2,500 countdown and variable messaging signs across the TfL road and public transport networks, issuing press releases to local and

³ <https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory--laei--2016>

⁴ <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/london-air-quality-map>

⁵ https://www.london.gov.uk/sites/default/files/air_quality_monitoring_guidance_january_2018.pdf

⁶ <https://uk-air.defra.gov.uk/latest/alerts>

national media and repeating the alert across the suite of Mayoral, GLA and TfL social media presence. Public Health England and NHS London are also directly notified of high and very high alerts.

Chapter 3, Protecting the Environment:

The key recommendations in this chapter were limited and mostly elaborated elsewhere (e.g. ammonia emissions from farming in chapter 7).

Importantly, however, Government committed to publishing guidance on cumulative impacts to assist in planning decisions. This has not yet come forward.

More critically this is the only chapter of the CAS that refers to the planning system, a strange omission given the scope and power of strategic planning in creating improved environments.

In London we have taken significant steps to utilise the planning system to its maximum effect in improving air quality. The new London Plan⁷ not only contains progressive and innovative air quality policies, such as air quality positive (see policy SI1), but seeks to integrate the strategic measures and thinking needed to improve air quality across the whole plan, from the key strategic aims (policy GG3), through urban design (policies SD4, D1, D3, D8 and D9), industrial locations (policies E5, E7 and SI8), energy (policies SI2 and SI3), waterways (policy SI17) to transport infrastructure (policies T1 to T9).

This is a model that the Government should be following, and we fear that the proposed reform of the planning system could risk diluting existing approaches or requirements.

Chapter 4, Securing Growth and driving innovation:

The package of actions set out in this chapter are very technology focused and lack consideration of the need to support behavioural change.

We also raised concerns about the lack of a clear plan for transitioning successful innovation into the mainstream.

⁷ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/intend-publish-london-plan-2019>

In London, Transport for London developed innovative abatement solutions to reduce pollutants from the London bus fleet and the London taxi has had a significant makeover to become zero emission capable. Much of this work has been adopted by the Government for national programmes like CVRAS⁸. By aligning these innovations with policy drivers for their uptake we have helped create the conditions for successful widescale deployment, for instance bus retrofits are now being adopted across the country and elsewhere in the world as well as being adapted for other sectors such as maritime and Non-Road Mobile Machinery while the ZEC taxi is now being sold, from factories in Britain, to new markets around the globe.

Chapter 5, Action to reduce emissions from transport:

Despite significant improvements made between the first and final drafts of the CAS the overall approach to transport emissions is still deficient and lacking in sufficient detail.

The most significant and demonstrably effective road transport measure, the creation of Clean Air Zones in various cities, seeks to copy London's approach without fully appreciating the conditions for the success of the ULEZ. In practice the process of requiring the creation of CAZ's has been badly mishandled and beset by delay and failure to adequately fund or support the affected authorities.

Maritime, aviation, freight and rail emissions were all acknowledged but in broad terms the proposals were to develop plans either later or elsewhere. Subsequent consultations on aviation and maritime plans have failed to rise to these challenges.

In terms of regulating Non-Road Mobile Machinery (NRMM), it is highly disappointing that the Government continues to drag its feet. Over 18 months on from the CAS Defra are only now progressing the external evidence gathering stage of developing regulations. The Mayor has repeatedly highlighted this as a priority area where he urgently needs Government assistance.

⁸ The "Clean Vehicle Retrofit Accreditation Scheme" administered by the Energy Savings Trust: <https://energysavingtrust.org.uk/transport/freight-and-retrofit/clean-vehicle-retrofit-accreditation-scheme-cvras>

London's innovative and unique NRMM Low Emission Zone has been in place for nearly five years and is driving progress with a significant uplift in emission standards this year⁹. Although successful in delivering emissions reductions the NRMM Low Emission Zone is a workaround created indirectly through the planning system and is hampered by the lack of direct, devolved powers.

We have provided evidence and insight to Defra on a number of occasions to assist with the development of these regulations (papers can be shared with the committee if helpful) however despite the apparent good intentions the reality remains that no progress has been made. This continued delay has long term consequences for the health of everyone working in sectors which use NRMM as well as those who live nearby.

Chapter 6, Action to reduce emissions at home

The proposals on woodburning in the CAS are acceptable as far as they go but fail to address the key flaws in the Clean Air Act around the difficulty of enforcing the offences and, crucially, the need to address the fireplace as well as the fuels. The CAS also fails to consider whether the use of solid fuels is even appropriate in modern urban environments. In the broader view the CAS falls short of considering the impacts of buildings on climate change; if we are to meet the national target of net zero by 2050 urgent action is needed to phase out fossil fuels as well as solid fuels. Action that, if done as part of a joined-up policy making approach, would have benefits for air quality as well. In London we have demonstrated how this could work in practice through joined up policies in the London Environment Strategy, London Plan and Mayor's Transport Strategy

In practice, even the commitments given have yet to bear fruit. The long-promised regulations on solid fuels are yet to emerge. Given the significance of solid fuel burning for national emissions and concentrations of PM_{2.5} the continued delay is deeply concerning.

Similarly, there is no evidence of progress on the proposals to limit and label volatile organic compound (VOC) containing products.

More broadly on indoor air pollution the CAS recognised the need for better understanding of the problems and solutions, but there is no evidence of progress at the national level. In London we have continued to investigate

⁹ <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/nrmm>

what can be done in both existing and new buildings, for example our ground-breaking Nurseries Audit programme included real world assessment of the efficacy of air filtration in existing buildings¹⁰. We have submitted recommendations based on the study to the Secretary of State for Defra but have not had any indication these will be taken forward.

Chapter 7, Action to reduce emissions from farming:

Ammonia emissions from farming are not only damaging locally but are an important contributor to PM_{2.5} throughout the UK, including towns and cities. The CAS recognised this and rightly proposed to introduce regulations to reduce this source of emissions.

Not only have these regulations not emerged but the key opportunity to introduce them, or even the powers to make these regulations, was missed in the Agriculture Bill despite lobbying from many including the Mayor of London.

Nor did the Agriculture Bill enable the new financial assistance provisions to be used to reduce impacts on air pollution. It is not clear when, or if, there will be another opportunity to implement these regulations during the lifetime of the CAS.

Chapters 8 – 10:

We were broadly supportive of these chapters, although we provided detailed suggestions on most of the points. Particular concerns around the Local Air Quality Management Framework and the devolution of powers are discussed in question 2.

That said, aside from the contents of the Environment Bill, there has been little progress on the policies in these chapters.

Summary

The CAS does not embody sufficient ambition to provide an effective long-term response to the UK's poor air quality. Limiting the ambition of the strategy should, however, have served to make it more easily and rapidly deliverable. In practice little of the CAS has been delivered over the last eighteen months.

¹⁰ <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/mayors-nursery-air-quality-audit-programme#acc-i-60591>

In London we have shown that ambitious, bold action can deliver cleaner air.

Continued delay to, or avoidance of, effective implementation of the Clean Air Strategy is more than just an administrative failure; it has direct lifelong impacts on the health and quality of life of everyone in the UK.

Every one of the deaths caused or brought forward by living or working in areas of poor air quality is an avoidable tragedy.

COVID-19 has shone a harsh spotlight on the equally tragic, but less frequently discussed, impacts of exposure to poor air quality on respiratory health. Far too many of those whose pre-existing medical conditions has made them more vulnerable to death or severe illness from COVID-19 are suffering from diseases caused or exacerbated by long-term exposure to poor air quality.

In February 2020 the GLA published a report that attempted to assess the impact of improvements in air quality on health. Amongst other things this report calculated that the Mayor's plans to improve air quality could avoid 295,000 new cases of disease and 1.1 million hospital visits by 2050. This would lead to an estimated £5bn in saving in avoided costs to the NHS¹¹.

Q2: Will the Environment Bill provide England with a robust legal framework to define and enforce air quality limits?

No, we do not believe that the Environment Bill creates a suitably robust framework. Nor does it successfully implement the areas of the CAS where primary legislation is needed, failing both on its own terms and on the wider need to take action.

Our detailed submission to the Environment Bill Committee, including suggested amendments, is appended.

In large part the bill is a legacy of a previous Government, responding predominantly to the need to quickly create new arrangements following Brexit. This issue has not gone away and, as we get ever closer to the end of the transition period the need to get the Bill both right and in time to ensure continued strong protections for our environment is clear. It is worrying that

¹¹ https://www.london.gov.uk/sites/default/files/modelling_the_long-term_health_impacts_of_changing_exposure_to_no2_and_pm2.5_in_london_final_250220_-4.pdf

previous commitments to enshrine key environmental principles and to ensure UK's environment was even stronger are being renege on.

In addition, since it was drafted the context for the bill has changed immeasurably, as COVID-19 has exposed the fragility in our society and deep flaws in our economy. We believe that this bill is an opportunity to build a cleaner, greener, more equal future, but it must be amended to safeguard the environmental gains that have been shown to be possible during lockdown if the opportunity is not to be missed.

The need for greater ambition aside we have identified three areas where we believe the bill needs substantial improvement even if it is to succeed on its own limited terms. These are:

- i. Targets and monitoring
- ii. Oversight and regulation (Office for Environmental Protection)
- iii. Creation and delegation of new powers

i. Targets and monitoring

In a recent interview in Air Quality News, Dr Maria Neira, Director Public Health, Environmental and Social Determinants of Health Department at the World Health Organization, has said the Government needs to raise the ambition in its Environment Bill. Her recommendation is for “all governments to try to move as soon as possible to our guidelines because we need to save the lives of those who are dying because of exposure to air pollution and those who are suffering.”

We agree. London has already adopted the World Health Organization recommended concentrations for PM_{2.5} as a target to be met by 2030. Despite having some of the highest concentrations in the UK we have shown that, with the delegation of appropriate powers, it would be possible for us to meet this target¹².

The proposed target setting framework in the Environment Bill does not require, or even incentivise, Government to meet WHO targets, and the requirement that at least some of the targets are 15 or more years away suggests a desire to put them in the long grass rather than take the urgent action that the health impacts warrant. Instead, we strongly encourage the

¹² https://www.london.gov.uk/sites/default/files/pm2.5_in_london_october19.pdf

government to adopt a similar approach as taken for climate change, where an ambitious Net Zero commitment was adopted.

Unlike the current arrangements where EU targets are set in primary legislation, targets once set may subsequently be lowered or revoked, except for the PM_{2.5} target which may not be revoked but can nevertheless still be lowered.

The bill introduces a welter of process, but little that guarantees action or protection for the environment. For instance, the interaction between binding long-term targets, non-binding interim targets, improvement plans, annual reports on long term targets, reports on international developments (which do not need to contain recommendations) and target reviews is complex and highly dependent on the motivations of the Government of the day.

The net effect of the current provisions in the bill is to allow Government not only to delay action but also to remove or weaken targets at a later date if they appear too hard or too expensive to meet. This fundamentally undermines the purpose of target setting in the first place.

ii. Oversight and regulation (Office for Environmental Protection)

The Office for Environmental Protection (OEP), as a replacement for the existing oversight provided by the European Commission and the European Court of Justice (ECJ) is a critical piece of governance infrastructure as the UK exits the EU.

Experience from the Client Earth court cases and the threat of EU fines have shown the vital nature of the ability to hold the Government of the day to account for failures to address environmental damage.

Unlike the European Commission and ECJ, the OEP as proposed is a watchdog with no teeth. In order to be effective, regulators need to be independent financially and operationally of the Government of the day and have significant powers to enforce their rulings, which is not the case for the OEP. This means that there is no effective enforcement of new environmental targets created under the Environment Bill.

iii. Creation and delegation of new powers

Irrespective of the framework used to create them achieving environmental outcomes is inevitably complex. Without a suitable portfolio of effective powers, delegated to those most able to use them effectively, targets are extremely unlikely to be met (especially in the case of this bill where they can easily be watered down instead).

The Mayor has shown that bold, rapid and effective action to improve air quality can and should be taken at the regional level (see questions 3 and 4 below).

The Government's "Air quality plan for nitrogen dioxide (NO₂) in UK (2017)" recognised this by co-opting the Mayor's proposals for London into the national plan in order to achieve the national target. Similarly, the CAS recognised the importance of appropriately delegated powers.

The Environment Bill, in large part, sidesteps the issue of powers but where it does make changes, they are poor. For instance, the "reforms" to the Clean Air Act ignore most of the known flaws with the legislation to concentrate on introducing an unworkable civil fine for smoke offences that would take two notices and around three months to issue.

The proposals for reform of the Local Air Quality Management Framework are equally concerning. While the concept of statutory co-operation is to be supported the framework proposed is limited in effect and, critically, completely ignores the potential of Mayors and Combined Authorities to take effective action.

Not only is this a flaw in its own terms but it serves to highlight the missed opportunity to adapt to constitutional changes since the last substantial Environment Act in 1995. The new metropolitan and combined authorities were created after the 1995 act and all have different powers and responsibilities which define the limits of their effectiveness. A critical opportunity has therefore been missed to fully exploit the power and willingness of these new bodies to act. The Mayor has suggested amendments to the Environment Bill Committee to extend the power to designate "air quality partners" to the Mayors and combined authorities. But even these amendments fall short of the potential for well thought out reforms to enable effective action at the regional level.

The Mayor has listed the powers and other changes he believes are necessary to build out from his current success to tackle all sources of pollution in policy 4.2.4 of the London Environment Strategy¹³. At the invitation of Defra we have previously worked these up in comprehensive detail, although with little impact on the ultimate shape of the Environment Bill.

In the absence of substantial change to the Environment Bill, there remains a need for a new Clean Air Act to create the better articulated, targeted and devolved powers and structures needed to enable effective action. Such an act would particularly need to address non-transport sources of pollution, especially from buildings.

Q3. What progress had the UK Government made on reducing air pollution and enforcing legal pollution limits before the COVID-19 pandemic?

In recent years there has been significant improvements in London’s air quality, especially for nitrogen dioxide (NO₂). However, this has been largely due to London driven interventions such as the world’s first Ultra Low Emission Zone and cleaning up the bus and taxi fleets as opposed to being driven by national policy and funding. In fact, the GLA has been specifically excluded from successive rounds of Government air quality funding, despite Defra’s own modelling¹⁴ showing that in 2020 82% of national total of kilometres of road exceeding the annual mean limit for NO₂ are in London.

The table below shows the annual average reduction in NO₂ nationally compared to London. National data comes from concentrations of nitrogen dioxide national statistics published by Defra¹⁵.

Table 1. Reduction in annual average NO₂ from 2016 - 2019

	National average	Central London	Inner London	Outer London
Roadside	6 µgm ⁻³	30 µgm ⁻³	13 µgm ⁻³	8 µgm ⁻³
Urban background	4 µgm ⁻³	6 µgm ⁻³	7 µgm ⁻³	4 µgm ⁻³

¹³ https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

¹⁴ <https://uk-air.defra.gov.uk/library/no2ten/2019-no2-pm-projections-from-2017-data>

¹⁵ <https://www.gov.uk/government/publications/air-quality-statistics/nitrogen-dioxide>

For all site types and areas of London the reduction in annual average NO₂ exceeded the national average reduction, with the largest reduction in central London where the ULEZ was introduced in April 2019. The reduction at roadside sites in central London was 5 times the national average reduction. This is a strong indication the most significant improvements in London have been driven by local (as opposed to national) policy.

The most significant improvements in London have been in reducing NO₂ from transport sources. This is because the Mayor currently has powers to act on transport. Further progress could be made in London, especially for particulate matter, were London to be given the powers requested by the Mayor in the London Environment Strategy to tackle other sources.

However, despite London's significant progress more action is needed. In 2019 over a third of London's air quality monitoring stations still exceeded the annual legal limit for NO₂.

Further details on recent improvements in London's air quality are available in the Air pollution monitoring data in London: 2016 to 2020 report¹⁶. Key findings include:

- Exceedances of the hourly limit value for NO₂ reduced by 97 per cent London wide between 2016 and 2019
- From 2004 to 2017 the NO₂ hourly limit threshold was always breached within the first week of each year. In 2019 there was only one site that exceeded the threshold limit, the monitoring site on the Strand in Westminster, which breached many months later in July.
- Annual average NO₂ reduced by an average of 21 per cent at monitoring sites London wide between 2016 and 2019, with reductions as high as 50 per cent at Putney High Street Façade where the first Low Emission Bus Zone was introduced in 2017
- All monitoring sites recorded a reduction in annual average NO₂ and the number of monitoring sites exceeding the annual limit for NO₂ fell by 40 per cent. However, there is still more work to be done. In 2019, 34 of the 86 comparable sites still exceeded the annual legal limit for NO₂
- The majority of sites recorded a reduction in annual mean PM₁₀ with an average reduction of 11 per cent across the network, rising to 14 per cent for roadside sites

¹⁶ <https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/air-pollution-monitoring-data-london-2016-2020>

- Less data is available for PM_{2.5} as there are fewer sites and more issues with data capture. However, the majority of sites recorded reductions in annual mean PM_{2.5} with an average reduction of 9 per cent across the network, rising to 16 per cent for roadside sites.
- More action is needed to tackle PM_{2.5}, as over 80 per cent of monitoring sites in 2019 still recorded levels of PM_{2.5} above the World Health Organization recommended limit.
- In 2016 over 450 state primary and secondary schools were located in areas that exceeded the legal limit for nitrogen dioxide and all schools were in areas that exceeded the WHO guideline for PM_{2.5}. We will be publishing revised data about the number of schools exposed above the legal limit in the autumn.

Q4. What does the early evidence from the COVID-19 pandemic say about the impact of poor air quality on health, and health inequalities for disadvantaged communities and other at-risk groups, and possible policy responses?

There is emerging evidence of an association between exposure to air pollution and the most severe effects of COVID-19, including an increase in the death rate. Most recently Sasidharan et al reported a strong correlation between NO₂ and PM_{2.5} levels and an increase in the risk of COVID-19 transmission in London¹⁷.

There is strong evidence that disadvantaged communities and non-white ethnic groups have been disproportionately affected by the pandemic. A range of social and environmental factors have been suggested as the cause of increased vulnerability amongst these groups, including lifetime exposure to higher levels of air pollution.

Whilst more research is needed to investigate the relationship between air pollution, inequality and COVID-19, there is established evidence linking air pollution exposure to social inequalities.

City Hall has produced a series of reports investigating the relationship between air pollution exposure and inequality: Air Pollution Exposure in

¹⁷ <https://www.sciencedirect.com/science/article/pii/S0048969720340377>

London: Impact of the Environment Strategy (2019)¹⁸; Updated Analysis of Air Pollution Exposure in London (2017)¹⁹; and Analysing Air Pollution Exposure in London (2013)²⁰.

The most recent report found that in 2013 in London the most deprived Londoners are on average exposed to nearly a quarter more nitrogen dioxide pollution than the least deprived.

However, the report found that as a result of Mayoral policy the inequality in exposure across the deprivation scale will be greatly reduced by 2030. For NO₂ the difference in average concentrations in the most to the least deprived areas will reduce by over 70 per cent. These inequalities could be addressed even sooner in London with greater Government support and could be replicated in other cities if the Government adopted London's level of ambition.

There was also increased exposure to air pollution in areas that have a higher percentage of non-white ethnic groups, with a particularly skewed distribution for the Black/African/Caribbean/Black British population. Nitrogen dioxide concentrations were on average between 16 and 19 per cent higher in areas where non-white people were most likely to live compared to areas where white people were most likely to live.

Q5. What are the current and emerging risks and opportunities for air quality posed by:

- a) **Short-term policy and societal changes in response to the pandemic, for example changes to transport to reduce the risk of transmission, and;**
- b) **Medium and long-term actions to promote economic recovery.**

Once the coronavirus emergency has passed and London starts to recover, our challenge is to seek to eradicate air pollution permanently and ensure the

¹⁸ <https://www.london.gov.uk/what-we-do/environment/environment-publications/air-pollution-london-impact-environment-strategy>

¹⁹ <https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/updated-analysis-air-pollution-exposure-london-final>

²⁰ https://www.london.gov.uk/sites/default/files/analysing_air_pollution_exposure_in_london_-_technical_report_-_2013.pdf

gains we have made through the introduction of ULEZ and other policies continue.

The key short-term risk and opportunity is a change in public attitude to public transport. If the previous trends of mode shift away from the car are allowed to stall or even reverse, many of the gains in local air quality could be undone. In London we are taking action through the Mayor's Streetspace Plan to support as many people who can no longer use public transport to walk and cycle instead. This project has temporarily taken road space from motor vehicles to create more cycling and walking space across the capital. Temporary changes to the Congestion Charge to reduce traffic congestion and reduce risk to vulnerable road users have also been introduced.

Polling shows that most Londoners agree that the perceived improvement in air quality is a positive outcome of lockdown. Building on these improvements is therefore an ideal platform to continue environmental improvements into the long-term future as part of London's green recovery.

There is a clear, strong public desire for the recovery from COVID-19 to be one that brings about positive change for both the environment and society more widely. The Mayor is clear that this should involve:

- Running our economic bailout packages through a green lens and attaching green strings to bailouts.
- Channelling public spending into green energy projects, infrastructure and job-creation schemes.
- And devolving greater powers to enable cities and regions across the country to implement targeted, local green recovery packages.

The opportunity to deliver a green recovery should enhance a strong civil society based on the public services of the future and seek to address and prevent poverty and disadvantage, promote health and wellbeing for all and provide positive opportunities for young people. The Mayor's activities to improve air quality in London are good examples of how meeting environmental goals, done well, contribute to these wider social aims.

In London we have already shown how action to tackle air pollution can not only gather significant public support but also can act as a springboard for

action in other areas, such as climate change. For example, the London Plan highlights how policies to tackle air pollution emissions from buildings also delivers benefits to climate change, policies that received widespread support during the consultation on the plan. The policy on Zero Emission Capable taxis has driven down air pollution from this sector whilst also incentivising the creation of a new green industry in the Midlands, attracting inward investment to the UK and accelerating the end of fossil-fuelled vehicles urgently needed if we are to tackle the climate emergency. Even more could be done with more effective devolution of powers, as is done elsewhere in the world.