

ROYAL BOROUGH OF GREENWICH AIR QUALITY ACTION PLAN 2023 to 2027





Summary

This Air Quality Action Plan (AQAP) has been produced as part of the Royal Borough of Greenwich's duty to review air quality in the borough and take action to address poor air quality as part of the London Local Air Quality Management (LLAQM) system. It outlines the proposed measures we will implement to improve air quality between 2023 to 2027.

The action plan replaces the previous one which was launched in 2017 and highlights successful projects and initiatives in recent years supporting improvements in air quality including:

- Low Emission Neighbourhoods first trialed in the Greenwich West and Peninsula.
- The continued upgrade of our council vehicles to lower carbon emissions, and the use of more than 30 electric vehicles.
- More than 300 electric vehicle charge points installed across the borough, 48 of which being rapid chargers.
- Plans to plant 2022 trees in the borough by 2022, but achieving this by December 2020.
- 24 schools in the borough achieving gold accreditation under the TfL STARS¹ programme.
- Four 'School Streets' being made permanent within the borough and a further seven being trialed. School Streets reduce traffic around schools at peak times and improve air quality.
- £1m of investment and enhancements to our parks and opens spaces.
- Installation of an innovative water source heat pump at Ernest Dens Estate as part of our ambitious journey to reach net zero carbon emissions by 2030.

In the UK, air pollution is currently the top environmental risk to human health; it increases susceptibility to respiratory infections and other illnesses. It is also the fourth ranking threat to public health after cancer, heart disease and obesity².

Research commissioned by Public Health England (PHE) found that the health and social care costs of air pollution (PM_{2.5} and NO₂) in England could reach £5.3 billion by 2035. This is a cumulative cost for diseases which have a strong association with air pollution such as coronary heart disease, stroke, lung cancer, and childhood asthma³.

The Royal Borough of Greenwich is committed to reducing poor air quality and improving the health of those who live, work and visit our borough.

In this AQAP we outline how we plan to tackle air quality issues within our control and how we will collaboratively work with our community, the Mayor of London, other London boroughs and air quality partners to support and influence wider improvements.



¹ Sustainable Travel: Active, Responsible, Safe

² Clean Air Strategy 2019, Department for Environment, Food and Rural Affairs
<https://www.gov.uk/government/publications/clean-air-strategy-2019>

³ <https://www.gov.uk/government/news/new-tool-calculates-nhs-and-social-care-costs-of-air-pollution>

Key Themes

We have developed actions under seven broad themes which complement the objectives set out in the Mayor's London Environment Strategy⁴.

Theme 1

Air quality monitoring and other core statutory duties: maintaining our monitoring network is critical for understanding where pollution levels are highest, and what measures are effective to reduce pollution. There are also a range of other important statutory duties undertaken by the council, which form the basis of action to reduce pollution.

Theme 2

Reducing emissions from developments and buildings: emissions from buildings account for about 25% of the NO_x emissions in the Royal Borough of Greenwich and about 15% across London so are an important source to tackle.

Theme 3

Public Health and awareness raising: increasing awareness can drive behavioural change to lower emissions as well as to reduce exposure to air pollution.

Theme 4

Delivery servicing and freight: vehicles delivering goods and services comprise light and heavy duty diesel-fuelled vehicles with high primary NO₂ emissions.

Theme 5

Reducing emissions from the council vehicles: our vehicles include both light and heavy duty diesel-fuelled vehicles such as minibuses and refuse collection vehicles with high primary NO₂ emissions. Improving our own fleet means leading by example.

Theme 6

Localised solutions: these seek to improve the environment of neighbourhoods through a combination of measures.

Theme 7

Cleaner transport: road transport is the main source of air pollution in Royal Greenwich and London. We need to encourage walking, cycling, use of public transport, and use of zero and ultra-low emission vehicles.

⁴ <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

Our vision and priorities

We want our residents and communities to be able to breathe clean air in our borough and to live, work and visit without exposure to harmful emissions. To achieve this, we have set out key priorities.

Our ten priorities for this five-year period are as follows:

- Targeting the reduction in emissions of key sources of PM_{2.5}.
- Prioritising active travel and public transport to reduce emissions from road transport.
- Significantly increasing the availability of electric vehicle charging points to enable the transition to zero emission vehicles.
- Implementing planning policies to ensure cleaner and lower emission development and infrastructure within the borough is prioritised through design, construction and operation.
- Increase awareness amongst our community about the detrimental impacts and effects of air pollution.
- Reduce pollution around our schools and residential areas.
- Lead by example, by championing the highest standards of air quality management through the delivery and procurement of services, products and projects.
- Improving the building stock within the borough by promoting and delivering energy efficiency retrofitting projects to homes and workplaces.
- Enhancing and improving our green infrastructure.
- Working in collaboration with our Air Quality Partners: neighbouring boroughs, Mayor of London, Environment Agency and Port of London Authority.



Responsibilities and commitments

This Air Quality Action Plan (AQAP) was prepared by the Community Safety and Environmental Health department of the Royal Borough of Greenwich in collaboration with the following departments:

- Parks and Open Spaces
- Transportation and Parking
- Fleet and Waste Services
- Sustainability
- Regeneration, Planning and Building Control
- Public Health
- Procurement
- Communications

This AQAP has been approved by:

- **Councillor Averil Lekau** – Deputy Leader and Cabinet Member for Climate Change, Environment and Transport
- **Councillor Rachel Taggart-Ryan** – Cabinet Member for Community Safety and Enforcement
- **Leanna Minahan** – Assistant Director of Community Safety and Environmental Health
- **Steve Whiteman** – Director of Public Health
- **Ryan Nibbs** – Assistant Director of Transport and Sustainability Transport

An annual review will be undertaken and progress each year will be reported in the Annual Status Reports, as part of our statutory London Local Air Quality Management duties.

If you have any comments on this action plan, please send them to:

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Abbreviations

AQAP	Air Quality Action Plan
AQFA	Air Quality Focus Area
AQM	Air Quality Management Area
AQO	Air Quality Objective
CAB	Cleaner Air Borough
CAZ	Central Activity Zone
EV	Electric Vehicle
GI	Green Infrastructure
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LEZ	Low Emission Zone
LLAQM	London Local Air Quality Management
NRMM	Non-road Mobile Machinery
NO²	Nitrogen Dioxide
OZEV	Office of Zero Emission Vehicles
PM₁₀	Particulate matter less than 10 micron in diameter
PM_{2.5}	Particulate matter less than 2.5 micron in diameter
PHE	Public Health England
TfL	Transport for London
WHO	World Health Organisation
WPL	Workplace Parking Levy

Foreword

We are proud to present the Royal Borough of Greenwich Air Quality Action Plan (AQAP) to you for 2023 to 2027. This is a comprehensive strategy aimed at improving air quality and enhancing the health and wellbeing of our community. As part of our statutory duty under the London Local Air Quality Management (LLAQM) system, this plan outlines targeted measures and initiatives designed to address the pressing issue of air pollution, which remains the leading environmental risk to public health in the UK.

Building on the successes of our previous action plan, we are committed to further reducing emissions, increasing public awareness, and fostering a healthier environment for all who live, work, and visit our borough. Our efforts have already seen significant achievements, such as the widespread implementation of low-emission initiatives, the upgrade of our council fleet to include over 30 electric vehicles, the installation of more than 300 electric vehicle charge points, and the planting of over 2,000 trees by 2020.

The impact of air pollution on health is profound, contributing to respiratory and cardiovascular diseases and posing a significant burden on healthcare services. Research highlights the urgent need for continued action, with projections indicating substantial health and social care costs if air pollution is not effectively managed.

This AQAP is structured around seven key themes, addressing air quality monitoring, emissions from buildings, public health awareness, delivery and freight services, council fleet emissions, localized solutions, and cleaner transport. Each theme outlines specific

actions and measures to achieve our vision of a borough where clean air is a fundamental right.

Our ten priorities for the next five years include targeting reductions in PM_{2.5} emissions, promoting active travel and public transport, expanding electric vehicle accessibility, implementing low-emission development policies, raising community awareness, reducing pollution around schools, leading by example in air quality management, improving building energy efficiency, enhancing green infrastructure, and collaborating with key partners.

The Royal Borough of Greenwich is dedicated to creating a cleaner, healthier future. We invite residents, businesses, and stakeholders to join us in this vital endeavour to safeguard our environment and public health.

Councillor Averil Lekau,
Deputy Leader and Cabinet Member for Climate Change, Environment and Transport

Responsibilities and Commitment

In addition to the Greater London Authority (GLA) guidance the final plan and development of this Air Quality Action Plan (AQAP) for the Royal Borough of Greenwich has been guided by GLA recommendations and by internal consultations within the borough.

The AQAP will be subject to an annual review, appraisal of progress and reporting to the Senior Management Team. Progress each year will be reported in the Royal Greenwich Annual Status

Reports, as part of our statutory London Local Air Quality Management duties. This AQAP has been endorsed by: Director of Public Health and Assistant Director of Transport and Sustainability.

Steve Whiteman
Director of Public Health

Ryan Nibbs
Assistant Director of Transport and Sustainability

Introduction

This Air Quality Action Plan (AQAP) outlines the actions that the Royal Borough of Greenwich will deliver between 2023 and 2027 to reduce concentrations of pollution, and exposure to pollution; thereby positively impacting on the health and quality of life of those who live, work and visit the borough.

The AQAP has been prepared as part of the statutory requirements for the council to work towards air quality objectives (AQOs) under Part IV of the Environment Act 1995 (as amended), its relevant regulations, and the London Local Air Quality Management (LLAQM) statutory process⁵. Under the LLAQM, local authorities such as the Royal Borough of Greenwich are required to review and monitor air quality within their area and declare an Air Quality Management Area (AQMA) where AQOs are exceeded. An AQAP must then be implemented, updated every five years; and progress reported annually.



The health and economic impacts of air pollution

This Air Quality Action Plan (AQAP) has been produced as part of the Royal Borough of Greenwich's duty to review air quality in the borough and take action to address poor air quality as part of the London Local Air Quality Management (LLAQM) system. It outlines the proposed measures we will implement to improve air quality between 2023 to 2027.

Research (2018) commissioned by Public Health England (PHE) found that the health and social care costs of air pollution (particulate matter - PM_{2.5} and nitrogen dioxide - NO₂) in England could reach £5.3 billion by 2035. This is a cumulative cost for diseases which have a strong association with air pollution such as coronary heart disease, stroke, lung cancer; and childhood asthma⁷.

When diseases with weaker evidence of association are also added, including chronic obstructive pulmonary disease, diabetes, low birth weight, lung cancer, and dementia, the costs potentially escalate to £18.6 billion by 2035. When all diseases are included, air pollution is expected to cause 2.4 million new cases of disease in England between now and 2035. PM_{2.5} alone could be responsible for around 350,000 cases of coronary heart disease and 44,000 cases of lung cancer in England over that time⁸.

Transport for London (TfL) and the Greater London Authority (GLA) commissioned researchers from the Environment Research Group (ERG) at Imperial College London to assess the impact on health of the

mayoral air quality policies, and air pollution in London in 2019, and future levels of air pollution up to 2050⁹. The report found that in 2019, in Greater London, the equivalent of between 3,600 to 4,100 deaths (61,800 to 70,200 life years lost) were estimated to be attributable to human-made PM_{2.5} and NO₂. This calculation is for deaths from all causes including respiratory, lung cancer and cardiovascular deaths.

In Royal Greenwich, the estimated deaths attributable to air pollution for 2019 range between 113 and 129. The report found that inner London boroughs had a lower rate of air pollution related mortality due to their younger age profile. However, for other air quality related health outcomes such as asthma admissions in children, boroughs with younger populations will be more affected.

Research published in 2022 by The Francis Crick Institute¹⁰ found that exposure to fine particulate matter (PM_{2.5}) in the air promotes the growth of cells in the lungs which carry cancer-causing mutations. The research estimated that outdoor air pollution causes roughly 1 in 10 cases of lung cancer in the UK.

⁵ London Local Air Quality Management (LLAQM) Policy and Technical Guidance.

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

⁶ Clean Air Strategy 2019, Department for Environment, Food and Rural Affairs

<https://www.gov.uk/government/publications/clean-air-strategy-2019>

⁷ <https://www.gov.uk/government/news/new-tool-calculates-nhs-and-social-care-costs-of-air-pollution>

⁸ Estimation of costs to the NHS and social care due to the health impacts of air pollution, 2018, Public Health England, <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>

⁹ <http://erg.ic.ac.uk/research/home/projects/tfl-hia-maqp.html>

¹⁰ https://www.crick.ac.uk/news/2022-09-10_scientists-reveal-how-air-pollution-can-cause-lung-cancer-in-people-who-have-never-smoked



A collaboration of national, regional and local action

The link between air pollution and health has been well established over many years including its social and economic impacts as briefly outlined earlier. Responsibility for tackling poor air quality in the UK requires a collaborative effort at national, regional and local level. The Royal Borough of Greenwich recognises the role it must play across all relevant functions, and it is within this context that this Air Quality Action Plan has been developed¹².

National Air Quality Policy

A green future: Our 25 year plan to improve the environment, Defra 2018

The 25 Year Environment Plan sets out the UK government's proposals to help the natural world regain and retain good health. It aims to deliver cleaner air and water in cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. Specifically with regards to clean air the plan states that this will be achieved by:

- Meeting legally binding targets to reduce emissions of five damaging air pollutants: ammonia, nitrogen oxides, non-methane volatile organic compounds, fine particulate matter and sulphur dioxide. This should halve the effects of air pollution on health by 2030.
- Ending the sale of new conventional petrol and diesel cars and vans by 2040 (subsequently brought forward to 2030 following consultation).
- Maintaining the continuous improvement in industrial emissions by building on existing good practice and the successful regulatory framework.

The government also committed to publishing a new Clean Air Strategy (see overleaf) to set out how continued improvements will be sought to public health, protecting the environment, supporting clean growth, and working towards legally binding ceilings on UK emissions of air pollution.



Ella Adoo-Kissi-Debrah coroner's inquest

In December 2020, the London Inner South Coroner's Court concluded a two-week inquest concerning the tragic death of nine-year-old Ella Kissi-Debrah in February 2013. The coroner found that air pollution was a significant contributory factor to both the cause and aggravation of Ella's asthma. During her illness between 2010 and 2013 she was exposed to levels of nitrogen dioxide and particulate matter in excess of World Health Organisation (WHO)

guidelines. The principal source of her exposure was traffic emissions.

The conclusion of the coroner as to the death was that Ella had died of asthma contributed to by exposure to excessive air pollution¹¹.

It is the first time a person in the UK has had air pollution listed as a cause of death.

¹¹ <https://www.innersouthlondoncoroner.org.uk/news/2020/nov/inquest-touching-the-death-of-ella-roberta-adoo-kissi-debrah>

¹² <https://www.gov.uk/government/publications/25-year-environment-plan>



The Clean Air Strategy 2019

The Clean Air Strategy sets out the action required across all parts of government to meet legally binding targets to reduce emissions of five key pollutants by 2030, and secure significant public health benefits. This includes action to reduce emissions from a range of sources, including domestic solid fuel combustion, agriculture, and industrial sources.

Key (selected) proposals outlined in the strategy include:

- Protecting the nation's health:
- Progressively cut public exposure to particulate matter pollution as suggested by the World Health Organisation (WHO). Set a new, ambitious, long-term target to reduce people's exposure to PM_{2.5} and publish evidence in 2019¹³ to examine what action would be needed to meet the WHO annual mean guideline limit of 10 µgm-3 (Revised to 5 µgm-3 under the 2021 WHO Guidelines)
- Reduce PM_{2.5} concentrations across the UK, so that the number of people living in locations above the WHO guideline level of 10 µgm-3 (Revised to 5 µgm-3 under the 2021 WHO Guidelines) is reduced by 50% by 2025.
- Provide a personal air quality messaging system to inform the public, particularly those who are vulnerable to air pollution, about the air quality forecast, providing clearer information on air pollution episodes and accessible health advice.
- Work with media outlets to improve public access to the air quality forecast.
- Action to reduce emissions from transport:
 - End the sale of new conventional petrol and diesel cars and vans by [2030].
 - Encourage the use of the cleanest modes of transport for freight and passengers, including active travel (walking, cycling etc).
 - Explore permitting approaches to reduce emissions from non-road mobile machinery (NRMM), particularly in urban areas.
- Action to reduce emissions at home:
 - Legislation to prohibit the sale of the most polluting fuels.
 - Ensure only the cleanest stoves are available for sale by 2022.
 - Changes to existing smoke control legislation to make it easier to enforce.
- New powers to local authorities to take action in areas of high pollution.
- Leadership at all levels:
- To drive and enable greater local action on air pollution, we will ensure responsibility sits at the right tier of local government and back this up with new powers as well as making existing powers easier to use. Neighbouring local authorities and other public bodies will work collectively to tackle air pollution.

The strategy made a commitment to bring forward primary legislation on clean air in the new Environment Act.

¹³ <https://www.gov.uk/government/publications/air-quality-assessing-progress-towards-who-guideline-levels-of-pm25-in-the-uk>

The Environment Act 2021

The Environment Act updates the local air quality management (LAQM) framework set up under the previous 1995 Act. It aims to ensure the continued relevance of the LAQM and that in particular responsibility for addressing poor air pollution is shared across local government structures and relevant public bodies who will be required to work more closely together to tackle local air quality issues. Central government is required to review the national air quality strategy (The Clean Air Strategy) and revise if appropriate.

The Act also includes amendments to the Clean Air Act 1993, aimed at simplifying the regime for local smoke control enforcement with additional enforcement powers for domestic burning (i.e. wood burning stoves).

The Environment Act establishes a legally binding duty on central government to bring forward at least two new air quality targets in regulations by 31 October 2022 (delayed at time of writing).

The proposed air quality targets for PM_{2.5} are (being consulted on at the time of writing):

- Annual Mean Concentration Target ('concentration target') - a maximum concentration of 10µgm-3 to be met across England by 2040.
- Population Exposure Reduction Target ('exposure target') - a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

Taking Charge: The Electric Vehicle Infrastructure Strategy, March 2022

Central government, recognising that if the UK economy is to achieve net zero emissions by 2050, it must decarbonise road transport. The proposed future phase out of new petrol and diesel cars, vans and trucks and the rapidly increasing supply of, and the demand for, electric vehicles (EVs) mean that charging port availability now stands as the single biggest challenge to that decarbonisation.

The EV infrastructure strategy sets out the government's strategic approach in delivering this charging infrastructure to 2030. By 2030, it expects there to be around 300,000 public charge points as a minimum in the UK.

Intervention will focus on two key sectors to accelerate the roll out of EV infrastructure:

- high powered chargers on the strategic road network through the £950m Rapid Charging Fund to unlock current barriers to deployment at locations, where the commercial case will not add up; and
- local on-street charging by putting an obligation on local authorities (subject to consultation) to develop and implement local charging strategies to plan for the transition to zero-emission council vehicles. The government will invest at least a further £500m to support local authorities to plan and deliver local public charging ports. This will include the £450m Local EV Infrastructure (LEVI) Fund, and the On-street Residential Charge Point Scheme. The LEVI Fund includes up to £50m to fund the staff needed to do this work, and the supporting knowledge and tools to help them to work out their specific local challenges and plan accordingly.



London Air Quality Policy

The London Plan, The Spatial Development Strategy for Greater London, March 2021, Mayor of London¹⁴.

The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20 to 25 years. The is part of the statutory development plan for London. Therefore, the policies in the plan should inform decisions on planning applications taken by the council. Greenwich's Local Plan must be in 'general conformity' with the London Plan, to ensure that the planning system across London operates in a joined-up way and reflects the overall strategy for how London can develop sustainably, which the London Plan sets out.

The London Plan proposes that "to improve Londoners' health and reduce health inequalities, those involved in planning and development must: seek to improve London's air quality, reduce public exposure to poor air quality and minimise inequalities in levels of exposure to air pollution."

Policy SI 1 'Improving air quality' details specific policy requirements including:

- The Royal Borough of Greenwich's Development Plan should seek opportunities to identify and deliver improvements in air quality.
- Development proposals within Royal Greenwich should not:
 - a) lead to further deterioration of existing poor air quality
 - b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits
 - c) create unacceptable risk of high levels of exposure to poor air quality.
- Masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an 'Air Quality Positive' approach¹⁵.
- Development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone (NRMM LEZ) and reduce emissions from the demolition and construction of buildings following best practice guidance.
- Development proposals should ensure that where emissions need to be reduced to meet the requirements of [at least] 'Air Quality Neutral' or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development.

¹⁴ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/london-plan-2021>

¹⁵ [Air Quality Positive LPG consultation draft, November 2021 \(consultation finished February 2022\)](https://www.london.gov.uk/what-we-do/planning/air-quality-positive-lpg-consultation-draft-november-2021) <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance/air-quality-positive-aqp-guidance-consultation>

London Environment Strategy, May 2018

The Mayor of London's Environment Strategy brings together and integrates a range of strategies each aimed at improving London's environment including:

- air quality
- green infrastructure
- climate change mitigation and energy
- waste
- adapting to climate change
- ambient noise;
- low carbon circular economy.

Air quality is recognised as being the most pressing environmental threat to the future health of London. The mayor's aim is:

"for London to have the best air quality of any major world city by 2050, going beyond the legal requirements to protect human health and minimise inequalities."

Key (selected) proposals outlined in the strategy include:

- Providing better information about air quality, especially during high and very high pollution episodes, and use emergency measures where appropriate.
- Promoting and prioritising more sustainable travel in London, including walking, cycling and public transport, as part of the Healthy Streets approach (see below.)
- Working with the government, TfL, London councils, the construction industry and other users of Non-road Mobile Machinery (NRMM), such as event organisers, to prevent or reduce NRMM emissions.
- Working with industry and other partners to seek reductions in emissions from construction and demolition sites.
- Improving London's air quality by reducing emissions from homes and workplaces, including through energy efficiency programmes.
- Setting new concentration targets for PM_{2.5}, with the aim of meeting World Health Organisation guidelines (10µgm-3 at time of publication) by 2030¹⁶ (amended WHO guideline level since publication to 5µgm-3).
- Through TfL and the boroughs, and working with government, implement local zero emission zones in town centres from 2020 and aim to deliver a central London zero emission zone from 2025, as well as broader congestion reduction measures, to pave the way to larger zero emission zones in inner London by 2040 and then London-wide by 2050 at the latest.
- Working with London's boroughs and other partners, seek to reduce emissions from wood and other solid fuel burning in London.

¹⁶ <https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/pm25-london-roadmap-meeting-who-guidelines-2030>



Transport Strategy, March 2018

The Mayor of London's Transport Strategy sets out the policies and proposals to reshape transport in London for next 20 years.

The 'Healthy Streets' approach is the underlying framework for the Transport Strategy. It is a system of policies and strategies putting people and their health at the heart of decision making. It uses ten evidence-based indicators, to assess the experience of being on London's streets; improving air quality being one of the ten.

The Royal Borough of Greenwich has adopted the Healthy Streets approach to deliver improvements that will enable the borough to improve people's experience of walking, cycling and using public transport whilst encourage fewer trips by car.

Active travel is at the heart of the Mayor's Transport Strategy and the following targets are set for London:

- Mode share – 80% of all trips in London to be made on foot, by cycle or using public transport by 2041 (from 63 per cent in 2015.)
- Physical activity - all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day by 2041.

We have adopted these targets as part of the Royal Borough of Greenwich's new Transport Strategy (Consultation Draft August 2022) and previously in the council's Third Transport Local Implementation Plan 2019, see overleaf.

The Royal Borough of Greenwich's Air Quality Policy

Our Greenwich Corporate Plan

"Our Greenwich" is the corporate plan for the next four years that focuses on the change the council wants to see in our borough. The document is structured around five themes that give focus whilst preventing us from becoming too siloed in our work. These five themes are broken down as follows:



Each theme has a vision for 2030 and below this vision a set of missions that work towards the delivery of that vision. The missions last for four years and guide the council's future action planning and related decisions. Poor air quality is recognised as one of the challenges for the Royal Borough of Greenwich.

Mission 7 of the corporate plan states, "It is easier, safer and greener to move around the borough and the rest of London" and one of several outcomes this mission will deliver is, "There are fewer areas of poor air quality in the borough".



Carbon Neutral Plan 2021 to 2030

The Mayor of London's Transport Strategy sets out The Royal Borough of Greenwich declared a climate emergency in 2019 and subsequently set a target to reach net zero carbon emissions 20 years ahead of the national target. The Carbon Neutral Plan sets out the changes and actions needed as a council and local community in collaboration to become a carbon neutral borough by 2030. The plan recognises the co-benefits of climate action in reducing emissions from air polluting sources such as transport, buildings and development.

The Carbon Plan sets out action needed under seven key themes:

Improving the energy efficiency of the borough's existing building stock.

Reduction of emissions from future development.

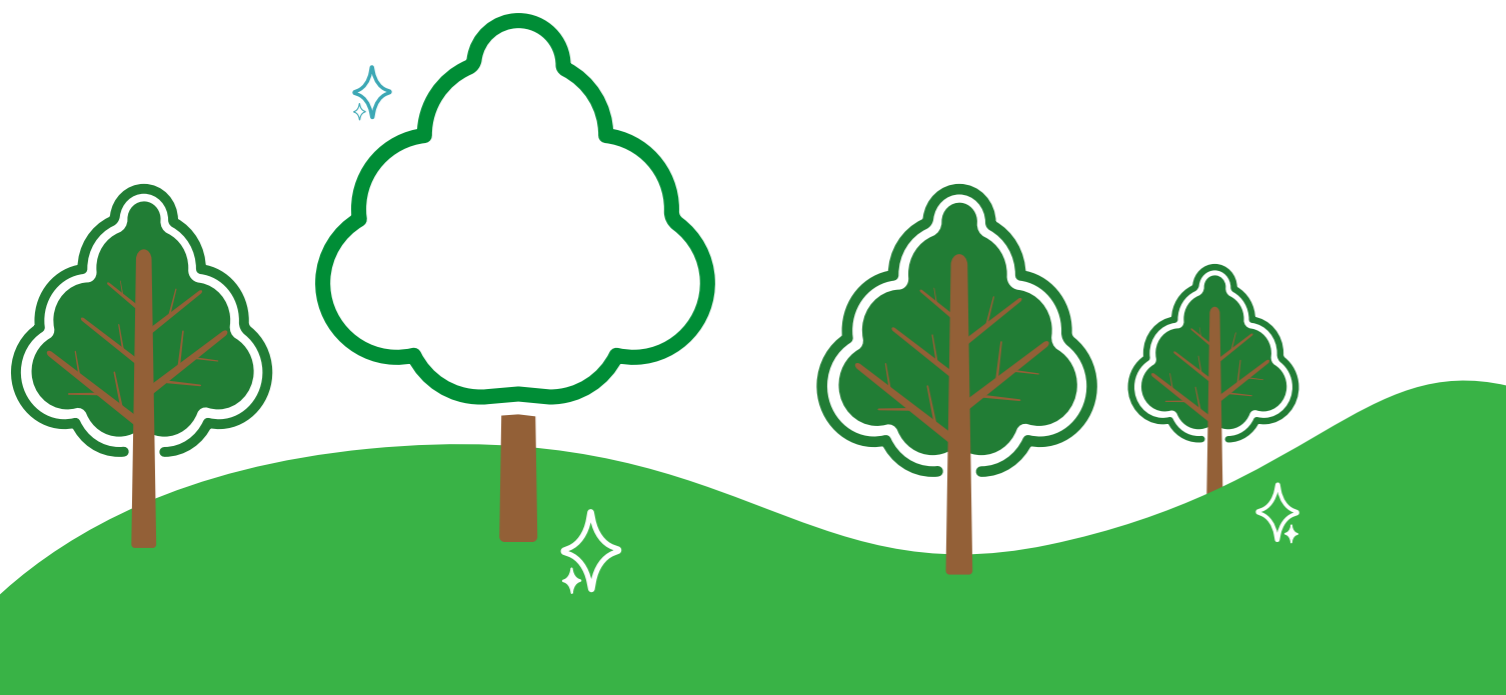
Prioritisation of active travel and public transport to reduce emissions from road transport whilst supporting transition to electric vehicles.

Securing cleaner renewable energy sources.

Implementing and promoting a circular economy.

Protection and enhancement of our green spaces.

Integrate reaching carbon neutral in all we do and enable others to do the same.



Transport Strategy 2022 to 2032

The Transport Strategy provides a medium to long-term approach to meeting the borough's vision of a clean, green and safe place to live, work and visit served by an attractive, accessible, healthy and sustainable transport network. The Transport Strategy addresses a broad range of transport related challenges and opportunities within the borough through a range of objectives and policies within five key themes, see overleaf, all aimed at achieving our vision.

**Theme 1:
A healthier Greenwich**
maintaining our monitoring network is critical for understanding where pollution levels are highest, and what measures are effective to reduce pollution. There are also a range of other important statutory duties undertaken by the council, which form the basis of action to reduce pollution.

**Theme 2:
A safer Greenwich**
Our transport network will be safer for everyone; however, they choose to travel.

**Theme 3:
A cleaner, greener Greenwich**
Our transport network will result in cleaner air through reducing car use, prioritising active and sustainable travel, and encouraging cleaner vehicles. Royal Greenwich's transport network will be resilient to climate change and future trends and uncertainties.

**Theme 4:
Economic prosperity for all**
Our transport network will support good growth and sustainable access to a wide range of services, jobs and opportunities. Our transport network will keep people moving, enabling people and goods to move efficiently.

**Theme 5:
A great place to be**
Our transport network will improve the connectivity, communication and collaboration in our communities, now and in the future.

The Transport Strategy is supported by several supporting Policy Framework Action Plans which focus on key areas of delivery including:

- Kerbside management
- Electric vehicles
- Road safety
- Active travel
- Streetscape

The Transport Strategy, alongside the Policy Framework Action Plans, builds on the adopted Third Transport Local Implementation Plan (LIP) 2019 which sets out the proposals for the delivery of the London Mayor’s Transport Strategy aim of 80% of all trips being made by walking, cycling or public transport by 2041. The LIP details our local transport objectives, a delivery plan and performance targets led by four strategic objectives:

- Healthier Greenwich
- Greener Greenwich
- Connected Greenwich
- Growing Greenwich

Under the strategic objective “Greener Greenwich”, reducing the significant contribution of vehicle emissions to poor air quality within the borough is explicitly identified as a key priority.

Local Plan: Core Strategy 2014

The Royal Borough of Greenwich’s local plan (under review at the time of writing) guides the decisions about the developments that take place within our borough. It sets out the long-term aspirations and identifies the broad locations in Royal Greenwich for future housing, employment, retail, infrastructure and other land uses, as well as providing detailed policies that will be used to assess planning applications. One of the key strategic objectives of the plan is:

“To promote low and zero carbon developments throughout Royal Greenwich, to reduce carbon emissions and air pollution.”

Health and Wellbeing Strategy 2023 to 2028

This strategy sets out the high-level priorities and key actions to improve health and wellbeing in the Royal Borough of Greenwich until 2028. The themed priorities outlined in the strategy are to support residents to:

Start well

- Children and young people (CYP) get the best start in life and can reach their full potential

Be well

- Everyone is more active
- Everyone can access nutritious food

Feel well

- There are fewer people who experience poor health as a result of addiction or dependency
- Fewer adults are affected by poor mental health
- Fewer children and young people are affected by poor mental health

Stay well

- For everyone to access the services they need on an equitable footing
- Effective integrated community teams based in neighbourhoods provide the right support when and where it is needed
- Reduce unfair and avoidable differences in health and wellbeing

Age well

- Health and care services support people to live fulfilling and independent lives and carers are supported

Our priorities span a resident’s life course. Working together on our ten shared priority areas will improve our resident’s lives and will inform how we deliver for the Healthier Greenwich Partnership. The Healthier Greenwich Partnership brings together partners from the NHS, the council, social care services, and the community and voluntary sector.

These priorities are informed by the Royal Borough of Greenwich’s Joint Strategic Needs Assessment (JSNA), an assessment of the health and wellbeing needs of the local community. The current Air Quality

and JSNA explicitly links poor air quality with a population’s health.

Air pollution is linked with other factors of population health: particularly levels of physical activity, for example neighbourhoods that encourage walking and cycling can promote physical and mental health, and lower levels of greenhouse gas emissions. Cleaning up air quality has the potential to deliver strong co-benefits: actions that improve air quality, increase physical activity and reduce emissions will address three of the major public health problems at once.



Air quality in the Royal Borough of Greenwich

As referenced earlier, Part IV of the Environment Act 1995 (as amended), its relevant regulations, the London Local Air Quality Management (LLAQM) statutory process and the government’s Clean Air Strategy, provide the overarching strategic framework for air quality management in the UK, and contain national air quality standards and objectives established to protect human health, see Table 1.

Table 1 Nitrogen Dioxide and Particulate Matter standards and objectives and WHO guideline levels

Pollutant	Objective (UK)	Averaging Period	Date ^a	WHO Guideline Level (2021) ¹⁷
Nitrogen Dioxide –	200µgm-3 not to be exceeded more than 18 times a year	1-hour	31 Dec 2005	
NO ₂	40µgm-3	Annual 24-hour ^b	31 Dec 2005	10µgm ⁻³ 25µgm ⁻³
Particulate Matter - PM ₁₀	50µgm-3 not to be exceeded more than 35 times a year 40µgm ⁻³	24-hour 24-hour ^b Annual	31 Dec 2004 31 Dec 2004	 45µgm ⁻³ 15µgm ⁻³
Particulate Matter - PM _{2.5}	10µgm ⁻³ (assuming the 2022 consultation level is adopted) 35% reduction in population exposure (compared to a base year of 2018) (assuming the 2022 consultation level is adopted)	Annual 3-year 24-hour ^b	2040 2040	5µgm ⁻³ 15µgm ⁻³

^a by which to be achieved and maintained thereafter

^b 99th percentile (i.e., 3–4 exceedance days per year)

¹⁷ <https://www.who.int/publications/i/item/9789240034228>

Parks and Open Spaces Strategy 2017

The strategy sets out the council’s strategic intentions for their management for the next ten years.

Parks and open spaces are essential components of the urban environment providing valuable breathing spaces, supporting the health and wellbeing of the borough’s population, encouraging biodiversity and helping to mitigate the anticipated effects of a changing climate. In Royal Greenwich, parks and open spaces also contribute and help define the borough’s cultural heritage which attracts significant numbers of tourists to the area.

This Strategy aims to:

- ensure our parks and open spaces are well managed and maintained to a high standard
- assist the council in achieving the objectives set out in the Local Plan

- contribute to the protection and enhancement of our green spaces
- highlight and strengthen links with other important strategies
- contribute to improving the health and wellbeing of the borough’s residents as well as people that work in the borough, the significant student population and tourists
- assist in meeting challenges such as climate change and flooding
- ensure our parks and open spaces offer the appropriate range of facilities and amenities to meet the needs of our growing and changing population.



Air Quality Management Area

In January 2001 as part of our statutory duties, the whole of the Royal Borough of Greenwich was declared an Air Quality Management Area (AQMA). This followed a review and assessment of air quality within the borough that predicted two pollutants, particulate matter (PM₁₀) and nitrogen dioxide (NO₂) were likely to exceed national objectives.

London Atmospheric Emissions Inventory

The GLA London Atmospheric Emissions Inventory (LAEI) is a database of pollutant emissions and their sources in London. Figures 1, 2 and 3 below and overleaf, present the latest modelled concentrations of NO₂, PM₁₀ and PM_{2.5} respectively within the Royal Greenwich. Most notably they show concentrations of all three pollutants which are highest along the borough's main transport routes and busiest roads including the A2 from the Blackwall Tunnel Southern Approach to the East Rochester way, the A206 from Deptford to Plumstead, the A205 from Horn Park to Woolwich, the A207 Shooter Hill Road, Eltham High Street and A20 Sidcup Road.

Figure 1 Modelled map of annual mean NO₂ concentrations (LAEI 2019)

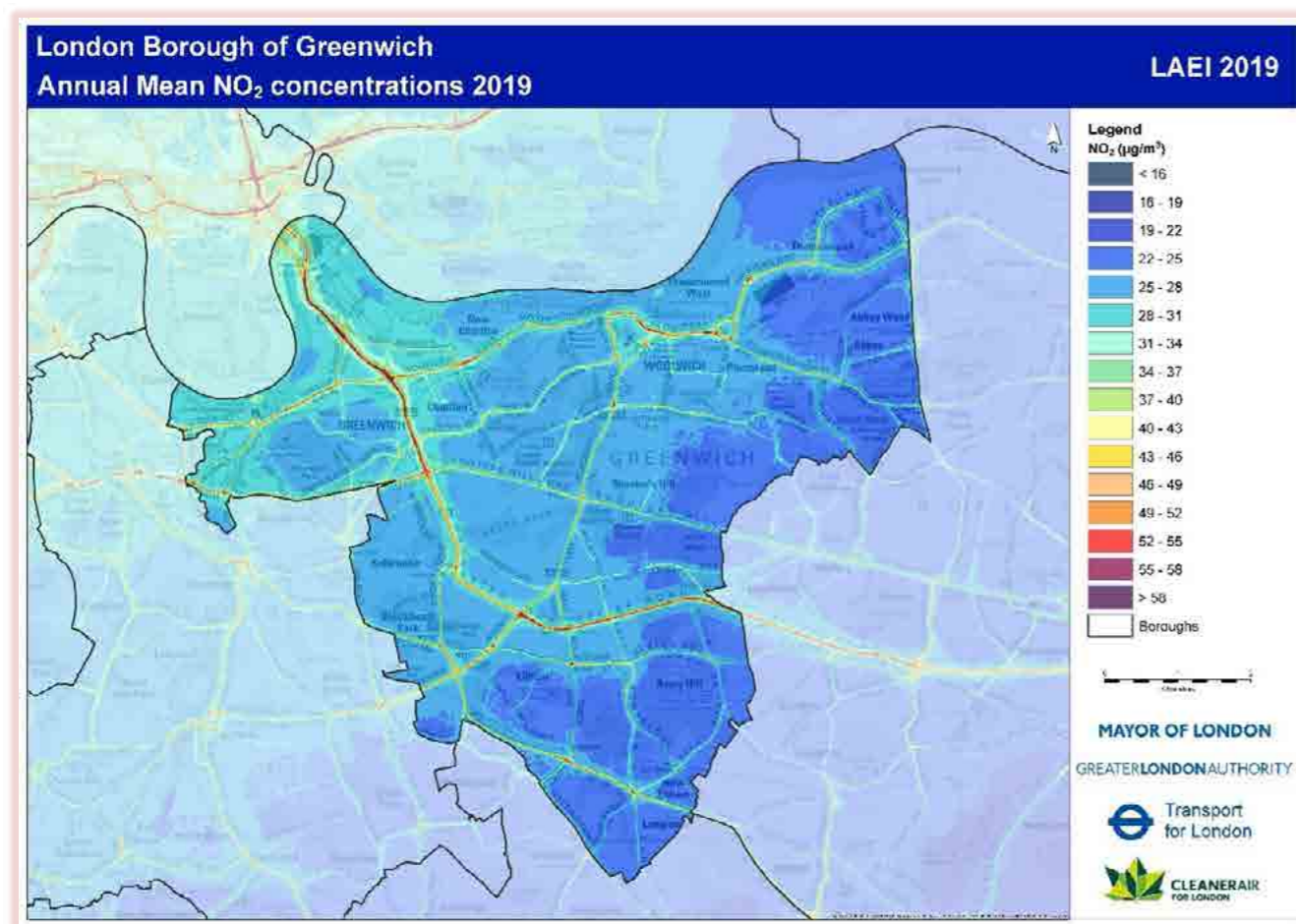


Figure 2 Modelled map of annual mean PM₁₀ (LAEI 2019)

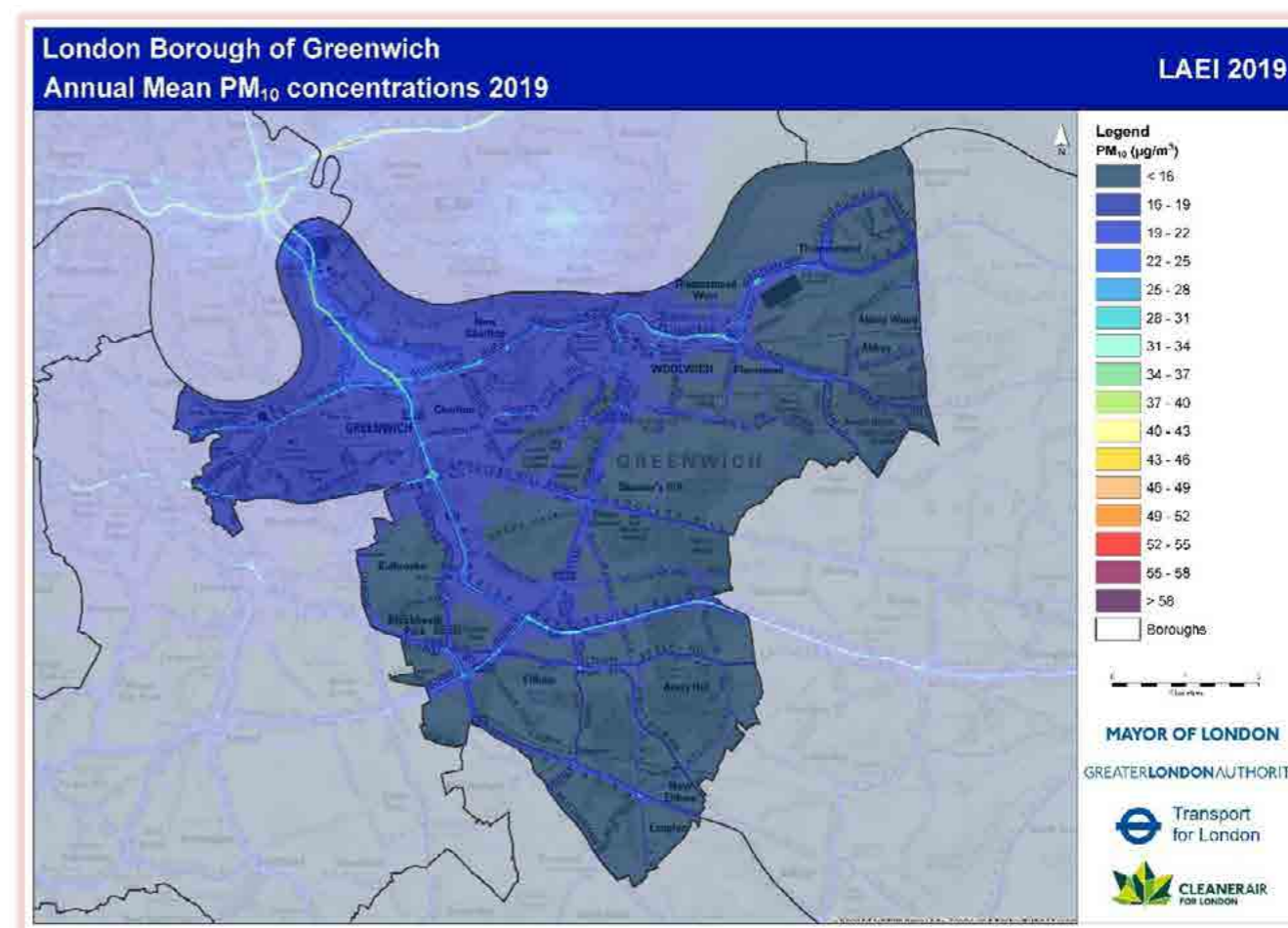




Figure 3 Modelled map of annual mean PM_{2.5} (LAEI 2019)

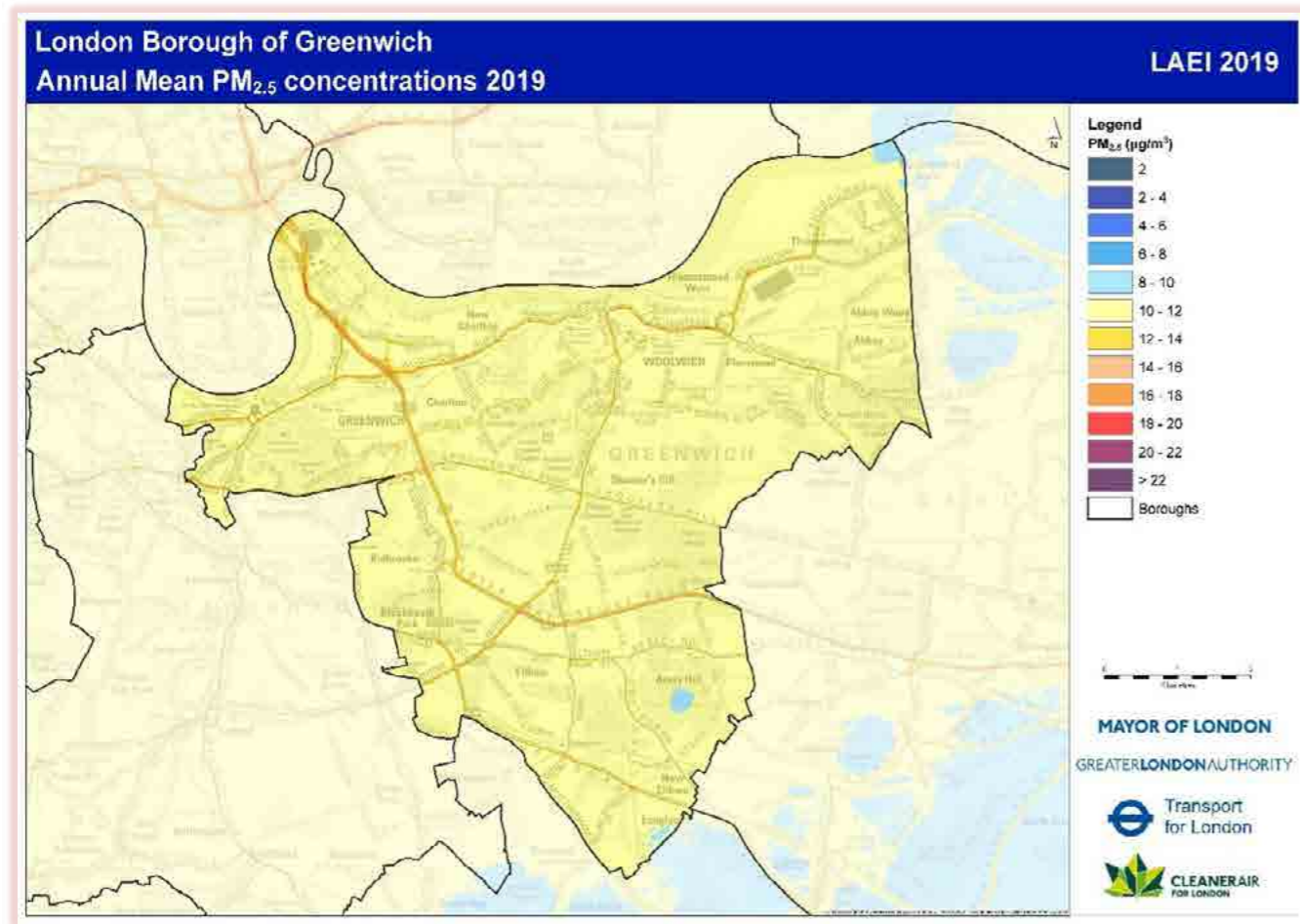
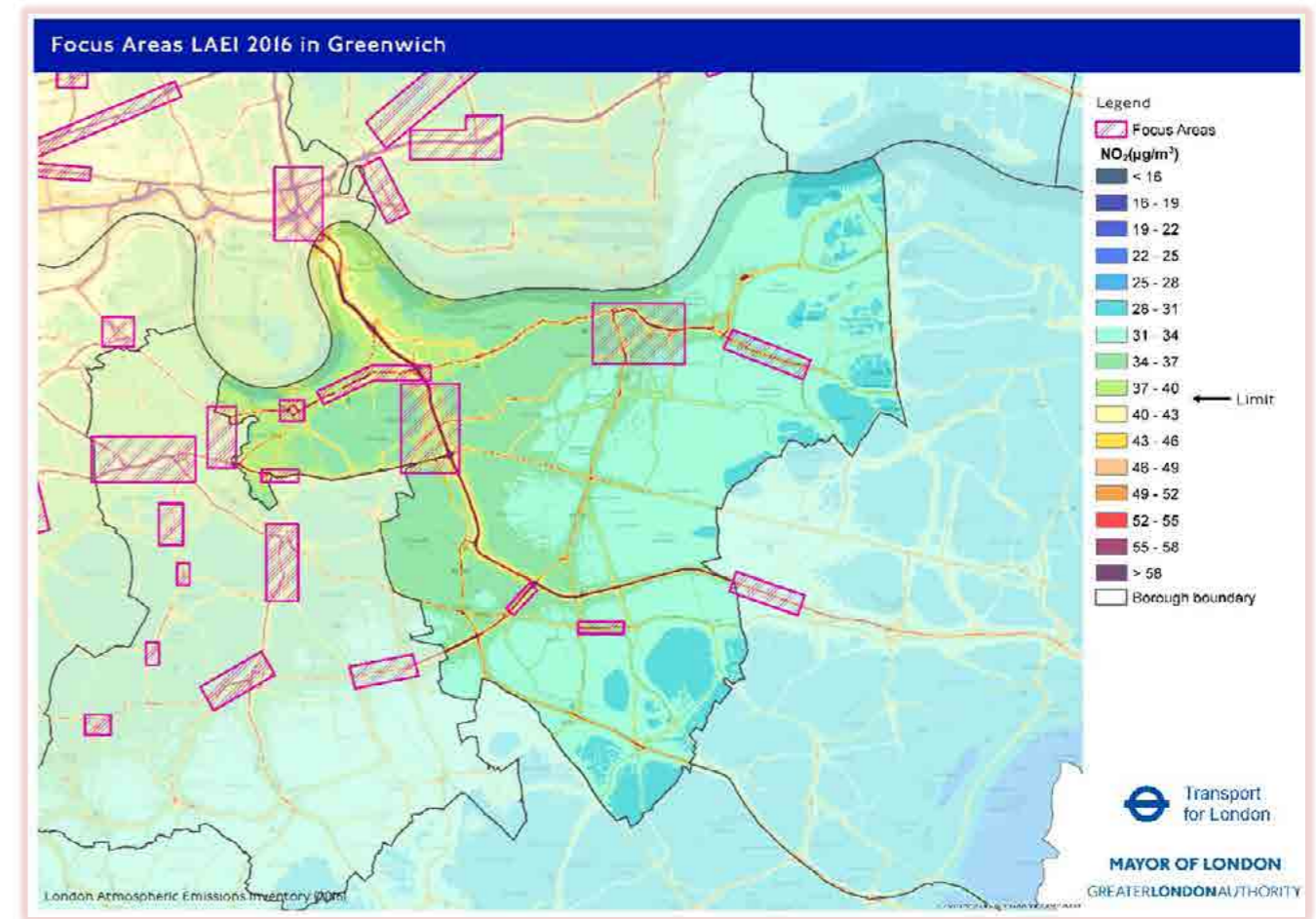


Figure 4 Air Quality Focus Areas in the Royal Borough of Greenwich (LAEI 2016, updated August 2019)



Air Quality Focus Areas

The LAEI also identifies Air Quality Focus Areas (AQFAs), locations having continued high levels of pollution and human exposure. There are currently eight (8) AQFAs identified in Royal Greenwich. These are listed below and shown in Figure 4.

- Westhorne Avenue A205
- Eltham High Street
- Greenwich Centre
- Sun-in-the-Sands junction A102/A2 Shooters Hill and Charlton Rd Roundabout
- Woolwich and Woolwich Arsenal A205 Woolwich Rd/A206 Plumstead Rd
- Greenwich South St/Lewisham High St Junction and Blackheath Hill
- Plumstead High Street (A206)
- Greenwich Trafalgar Road (A206) and Woolwich Road



Sources of air pollution in the Royal Borough of Greenwich

Air pollution in the Royal Borough of Greenwich comes from a variety of sources. This includes pollution from sources outside of the borough, and, in the case of particulate matter, a significant proportion of this comes from outside of London and even the UK. Of the pollution that originates in the borough the main sources of NO₂, PM₁₀ and PM_{2.5} are explored further below.

Local sources of Nitrogen Dioxide, NO₂

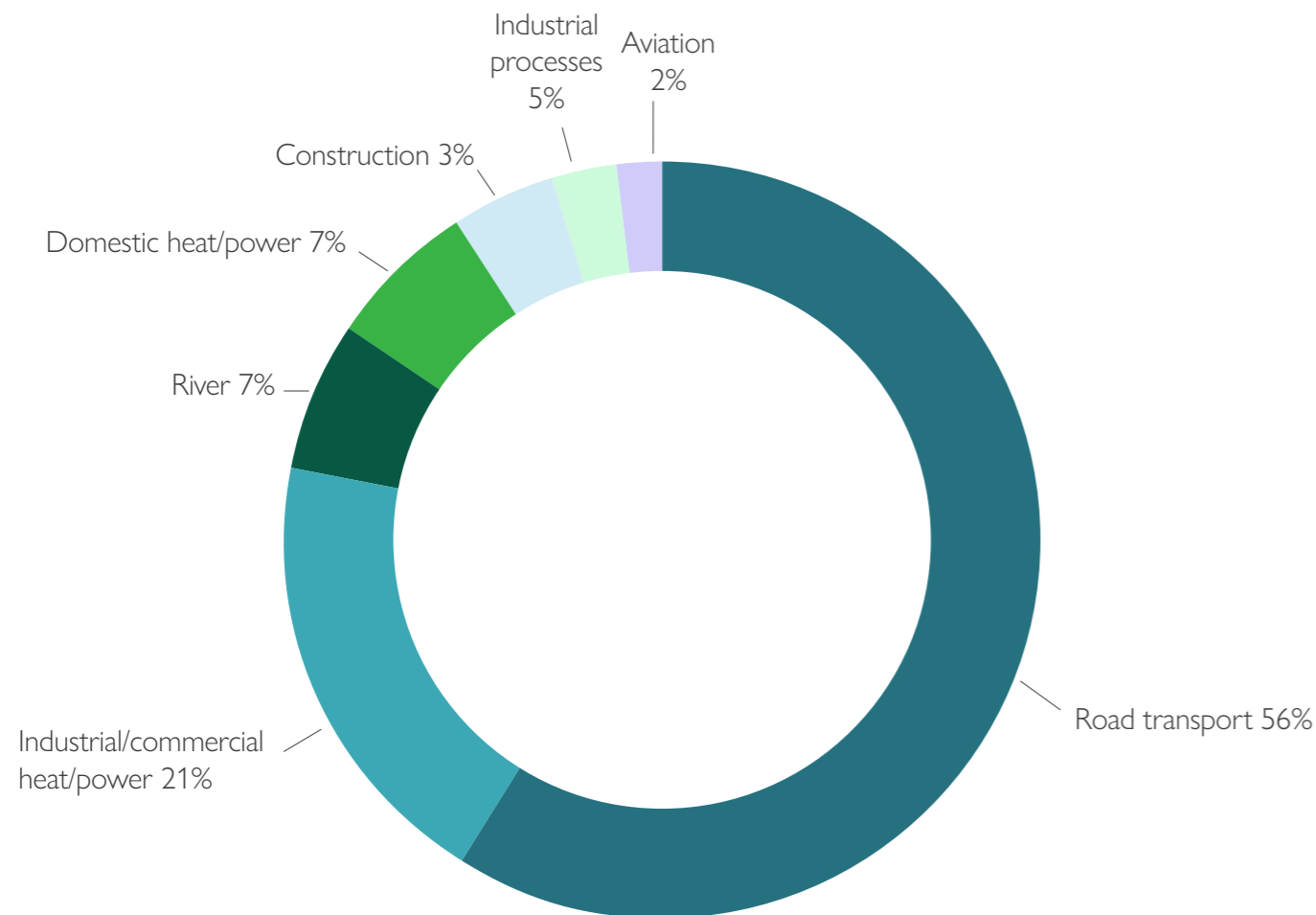
Based on the 2019 LAEI modelled data, see Figure 5 below, road transport is the largest individual source of NO₂ in Royal Greenwich, accounting for >55% of local emissions. Industrial/commercial heat and power generation makes up the next significant proportion with >20% contribution to local emissions respectively.

Domestic heat and power, industrial processes, river related combustion sources and construction NRMM emissions predominantly make up the remaining +20% contribution to local NOx emissions.

These are all key combustion sources of NO₂ on which to focus our efforts to reduce their contribution.

Figure 5 NOx emissions by source and vehicle type (LAEI 2019)

LAEI- Emissions by Source - Nox Emissions, Greenwich 2019



Local sources of Course Particulate Matter, PM₁₀

Figure 6 below, based on the 2019 LAEI modelled data, shows both road transport and construction activity contribute to more than half PM₁₀ emissions within Royal Greenwich generated from both the driving of diesel and petrol engine vehicles and Non-Road Mobile Machinery (NRMM) as well as from the dust generated by construction site activities.

This will be a key focus for the council in strategic development locations identified in the Core Strategy. These include designated Opportunity Areas namely, Deptford Creek/Greenwich Riverside; Greenwich Peninsula; Charlton Riverside; Woolwich and Thamesmead and Abbey Wood; the Kidbrooke Intensification Area; and the town centres in Eltham (Major), Greenwich (District), East Greenwich

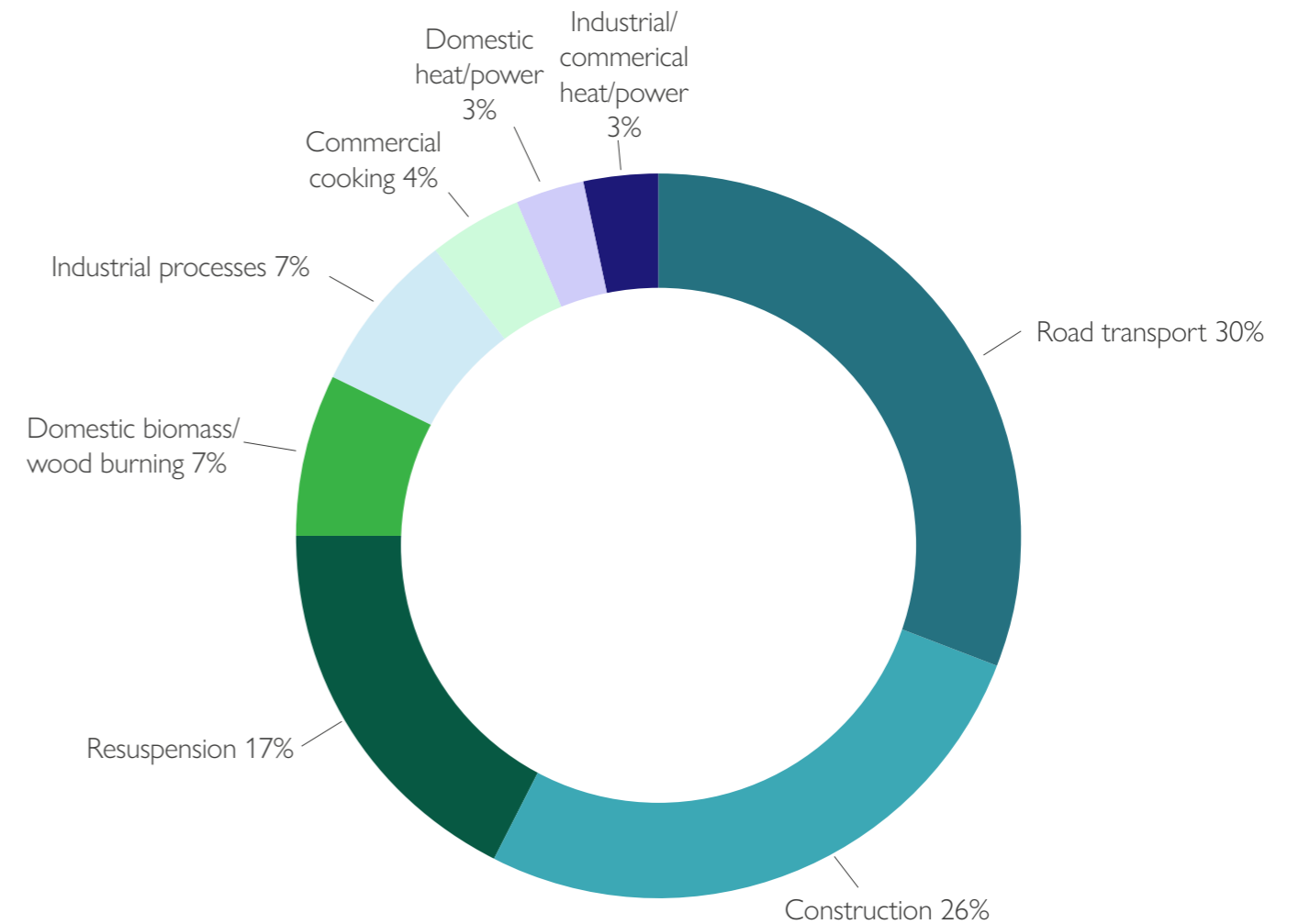
(District) and Plumstead (District) which are the focus for more localised growth.

Resuspension of non-exhaust emissions (NEE) of particles caused by brake wear, tyre wear, road surface wear, and resuspended road dust are the next major source of PM₁₀ at >10%. However, it is considered that aside from the enforcement of good construction management practices and regulated industrial premises the ability of the council to effectively tackle resuspension of NEE at source may be limited¹⁸.

Biomass burning (including domestic woodburning), and industrial processes are the next largest source of PM₁₀ on which to focus our efforts to reduce their contribution.

Figure 6 PM₁₀ emissions by source (LAEI 2019)

LAEI- Emissions by Source - PM₁₀ Emissions, Greenwich, 2019



¹⁸ https://uk-air.defra.gov.uk/library/reports.php?report_id=992

Local sources of Fine Particulate Matter, PM_{2.5}

Figure 7 below presents local sources of PM_{2.5} with road transport again being the major contributor at approximately 34%.

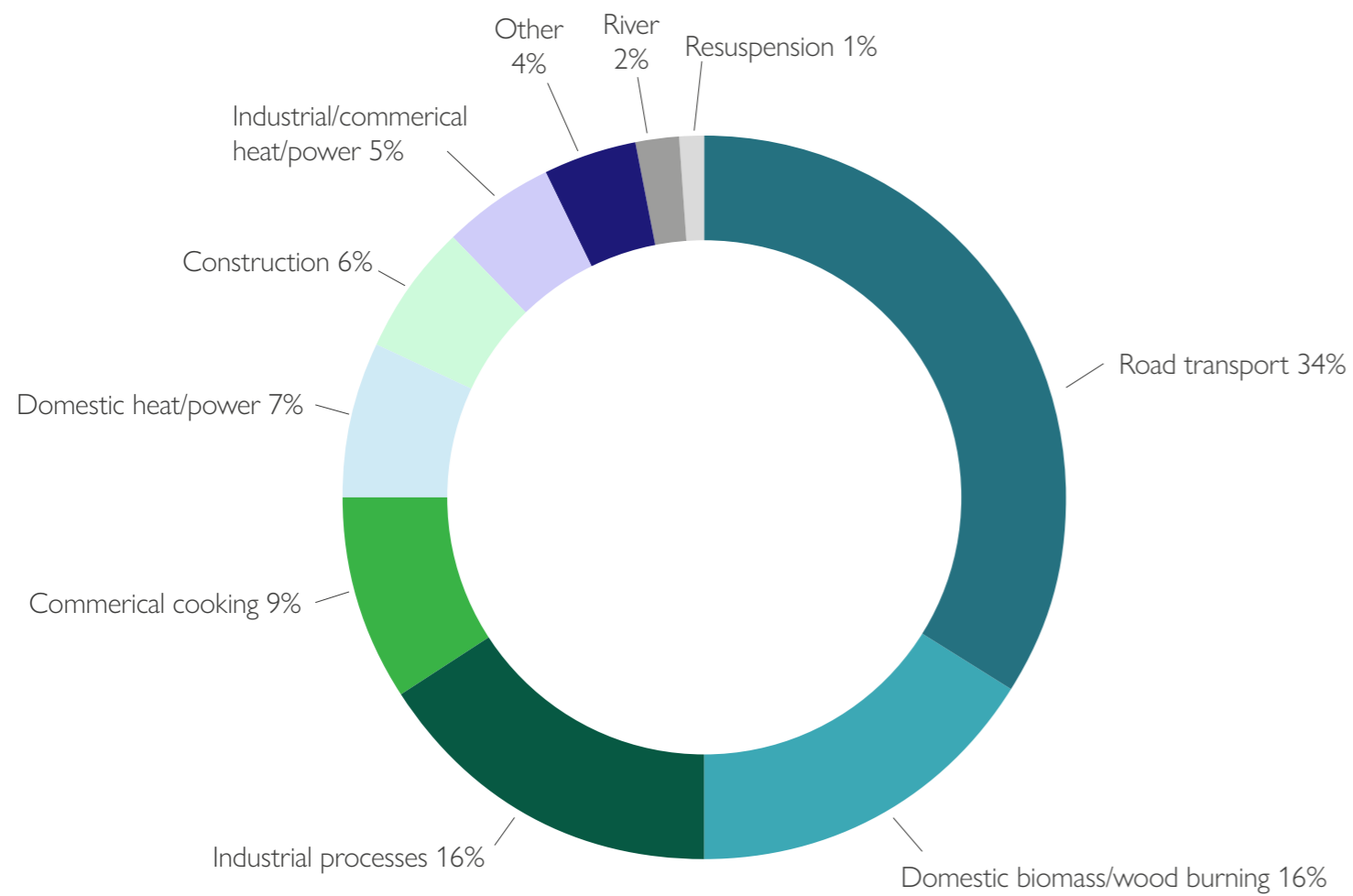
Domestic biomass burning and industrial processes then account for >30% of local emissions. The significant contribution of biomass burning illustrates the growing popularity of wood burning stoves in London

and the UK in recent years. Their use is anticipated to increase further with the escalating energy costs in 2022/2023 and efforts to promote their proper use will be key.

Commercial cooking, domestic and commercial heat and power and construction NRMM then make up most of the remaining third PM_{2.5} source contribution.

Figure 7 PM_{2.5} emissions by source (LAEI 2019)

LAEI- Emissions by Source - PM_{2.5} Emissions, Greenwich, 2029





The Royal Borough of Greenwich's air quality priorities

Key themes

We have developed actions under seven broad themes which complement the objectives set out in the Mayor's London Environment Strategy ¹⁹.

Theme 1

Air quality monitoring and other core statutory duties: maintaining our monitoring network is critical for understanding where pollution levels are highest, and what measures are effective to reduce pollution. There are also a range of other important statutory duties undertaken by the council, which form the basis of action to reduce pollution.

Theme 2

Reducing emissions from developments and buildings: emissions from buildings account for about 30% of the NO_x emissions in Royal Greenwich and about 15% across London so are an important source to tackle NO₂ concentrations.

Theme 3

Public Health and awareness raising: increasing awareness about the health, social and costs impact of air pollution can drive behavioural change to lower emissions as well as to reduce exposure.

Theme 4

Delivery servicing and freight: vehicles delivering goods and services predominantly comprise light and heavy-duty diesel-fuelled vehicles with high primary NO₂ emissions.

Theme 5

Reducing emissions from the council vehicles: our council vehicles include a substantial inventory of light and heavy-duty diesel-fuelled vehicles such as minibuses and refuse collection vehicles with high primary NO₂ emissions. Improving our own fleet means leading by example.

Theme 6

Localised solutions: these seek to improve the environment of neighbourhoods through a combination of measures.

Theme 7

Cleaner transport: road transport is the main source of air pollution in Royal Greenwich and London. We need to encourage walking, cycling, the use of public transport and of zero and ultra-low emission vehicles.

Our vision and priorities

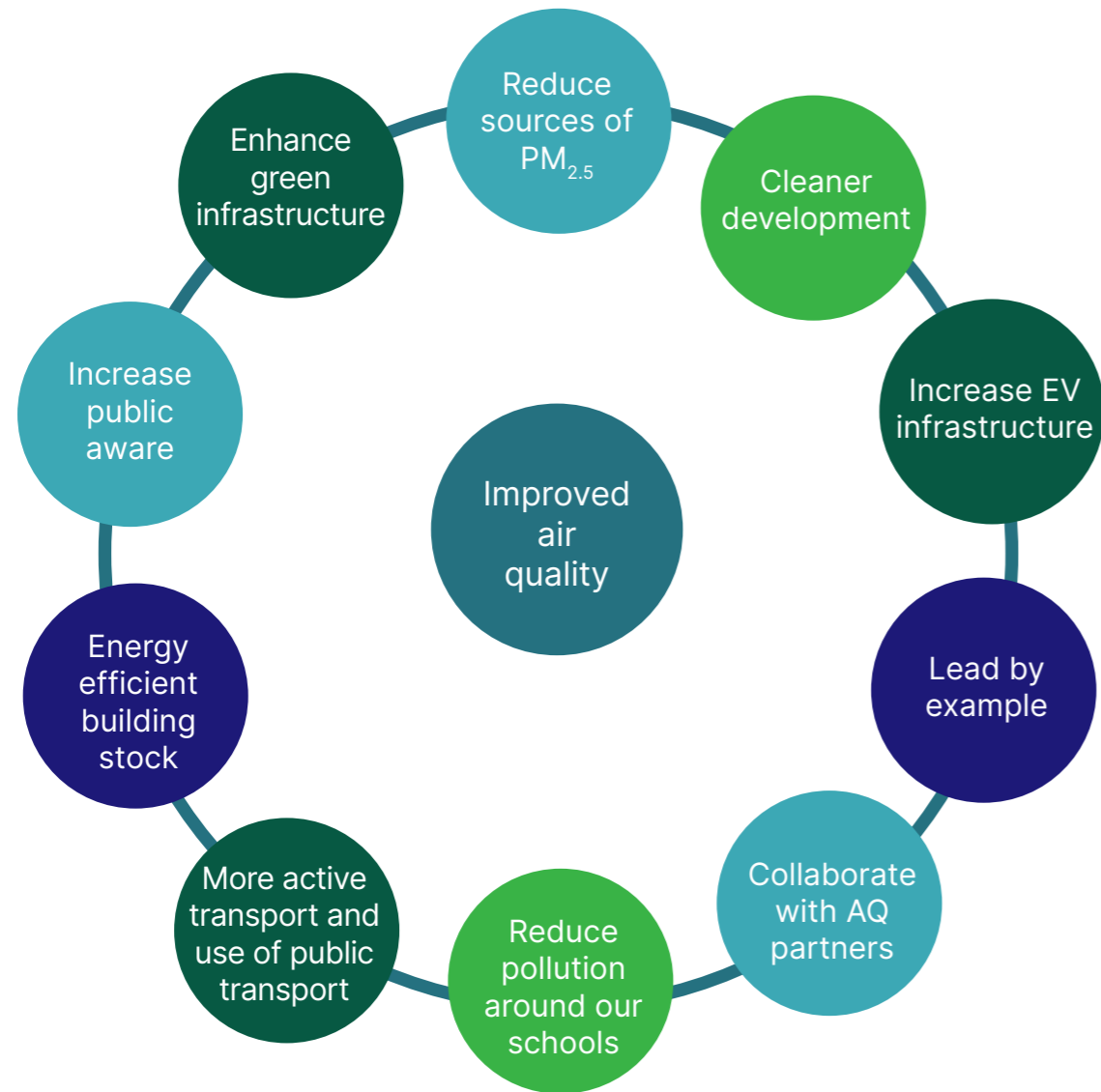
We want our residents and communities to be able to breathe clean air in our borough and to live, work and visit without exposure to harmful emissions. To achieve this, we have set out key priorities.

Our ten priorities for this five-year period are as follows:

- Targeting the reduction in emissions of key sources of PM_{2.5}.
- Prioritising active travel and public transport to reduce emissions from road transport.
- Significantly increasing the availability of electric vehicle charging points to enable the transition to zero emission vehicles.
- Implementing planning policies to ensure cleaner and lower emission development and infrastructure within the borough is prioritised through design, construction and operation.
- Increase awareness amongst our community about the detrimental impacts and effects of air pollution.
- Reduce pollution around our schools and residential areas.
- Lead by example, by championing the highest standards of air quality management through the delivery and procurement of services, products and projects.
- Improving the building stock within the borough by promoting and delivering energy efficiency retrofitting projects to homes and workplaces.
- Enhancing and improving our green infrastructure.
- Working in collaboration with our Air Quality Partners: neighbouring boroughs, Mayor of London, Environment Agency and Port of London Authority.

¹⁹ <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

Figure 8 Royal Greenwich Air Quality Priorities for the next five years



The action plan continues the track record of successful projects and initiatives in recent years supporting improvements in air quality in the borough which include:

- Innovations first trialled in the Greenwich West and the Peninsula Low Emission Neighbourhood which continue to be embedded into our standard service delivery.
- The continued upgrade of our council vehicle fleet to lower and zero emission vehicles, now comprising more than 30 electric vehicles.
- More than 300 electric vehicle charge points installed across the borough, 48 of which being rapid chargers.
- Planting of 2022 trees in the Borough by 2022 but achieving this target by December 2020.
- 24 schools so far in the borough achieving gold accreditation under the TfL STARS²⁰ programme.
- Four 'School Streets' initiatives being made permanent schemes within the borough and a further seven trials underway to reduce traffic around schools at peak times and reduce poor air quality.
- £1m of investment and enhancements of our parks and opens spaces.
- Installation of an innovative water source heat pump at the Ernest Dence Estate as part of our ambitious journey to reach net zero carbon emissions by 2030.

²⁰ Sustainable Travel: Active, Responsible, Safe

Theme 1 - Air quality monitoring and core statutory duties

Key requirement of the London Local Air Quality Management (LLAQM) include:

- Ensuring an Air Quality Management Area (AQMA) is declared and in place for any locations that are exceeding air quality objectives and limit values.
- Continuing to monitor and assess air pollution with the borough and maintaining current levels of monitoring.
- Completing and submitting Annual Status Reports (ASRs) to the GLA and publishing on the council's website.
- Where monitoring shows a significant increase or decrease in pollution, utilise local monitoring and mapping provided by the GLA to assess whether an AQMA should be revised.
- Maintaining the AQMA for PM₁₀ even if meeting the limit values to provide an interim mechanism for ensuring a focus on PM_{2.5} is maintained, in order to work towards the WHO health-based targets.
- Ensuring that a current and relevant Air Quality Action Plan (AQAP) is published and updated every five years, reporting progress in the ASR.
- Cooperating with the GLA, other public bodies and neighbouring London boroughs (Air Quality Partners).

The Royal Borough of Greenwich operates ten automatic monitoring stations measuring NO₂, PM₁₀, PM_{2.5} and Ozone (O₃) in key locations to the north of the borough in Greenwich, New Charlton, Woolwich, Plumstead, and Eltham in the south. These sites have been operating for many years and are part of the Imperial College led London Air Quality Network (LAQN). These monitors are supplemented by forty two nitrogen dioxide, NO₂, diffusion tube monitoring locations across the borough. The majority of monitoring locations are representative of relevant public exposure to pollution. All monitoring results are detailed in the Annual Status Reports and published on the council's website²¹.

Nitrogen Dioxide, NO₂

Over the past seven years all monitoring locations indicate a general trend of reducing levels of NO₂ across the borough, see Figure 9 overleaf. Despite the reduced levels, concentrations of NO₂ are still exceeding the UK 40 µg^m-³ annual average air quality objective at some of our monitoring locations (including diffusion tube monitoring locations – data presented in the Annual Status Reports) i.e. Woolwich Flyover, Plumstead Road and Eltham High Street. These correspond with locations in three of the modelled Air Quality Focus Areas (AQFAs) identified and near to a fourth, namely:

- Greenwich Trafalgar Road (A206) and Woolwich Road (Automatic Monitor GR8 Woolwich Flyover)
- Eltham High Street (Diffusion tube GW44)

- Woolwich and Woolwich Arsenal A205 Woolwich Rd/A206 Plumstead Rd (Diffusion Tube GW101)
- Plumstead High Street (A206) (Diffusion GW102 nearby)

Following the revision of WHO air guideline levels in 2021, monitoring and modelling data now shows widespread exceedance across the borough of the new WHO guideline level of 10µg^m-³ (formerly 40µg^m-³), a level now much lower than the UK legal objective.

£1m of investment and enhancements of our parks and opens spaces.

Installation of an innovative water source heat pump at the Ernest Dens Estate as part of our ambitious journey to reach net zero carbon emissions by 2030.

²¹ https://www.royalgreenwich.gov.uk/downloads/download/183/air_quality_reports

Figure 9 Annual Mean NO₂ Automatic Monitors 2015 - 2021

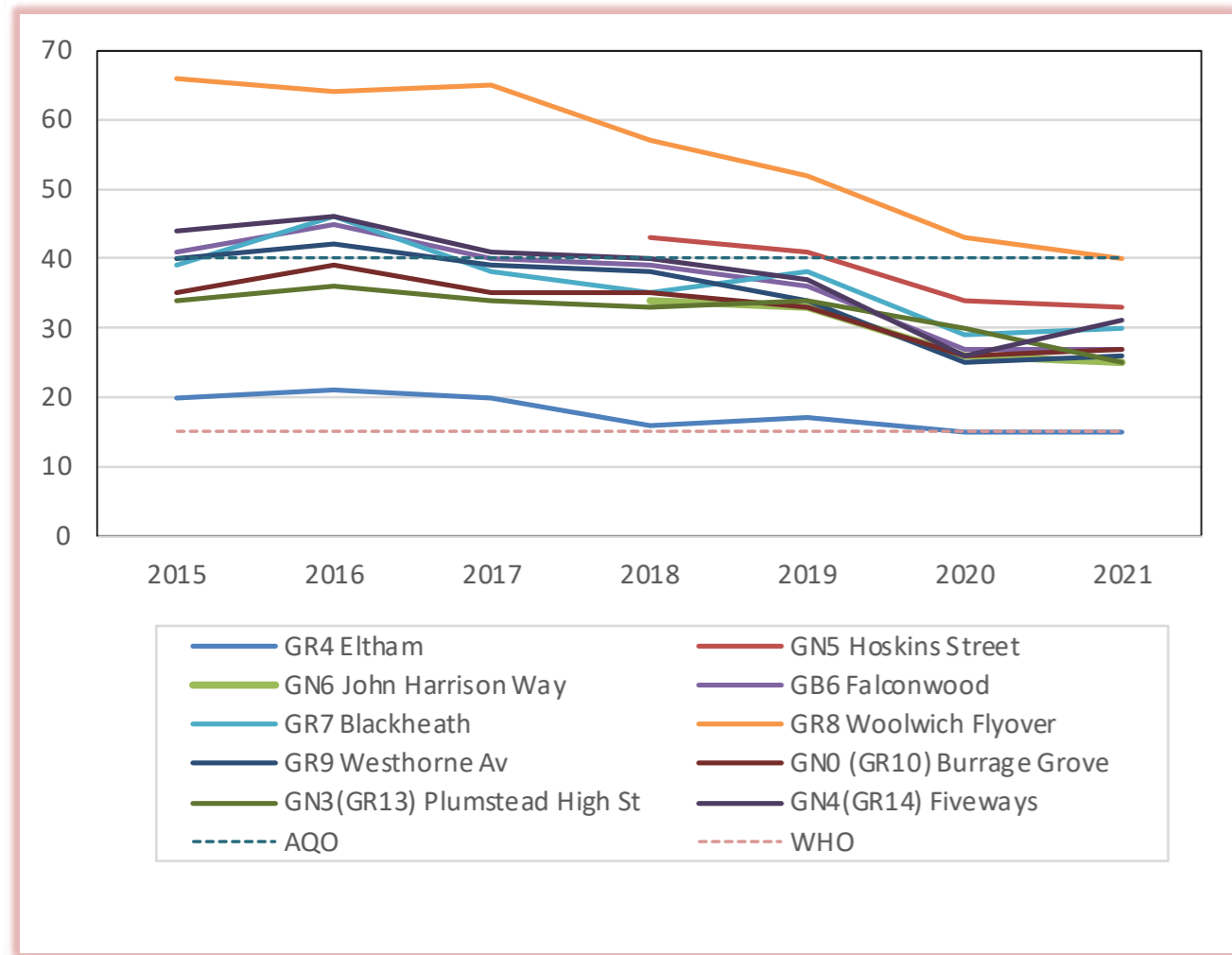
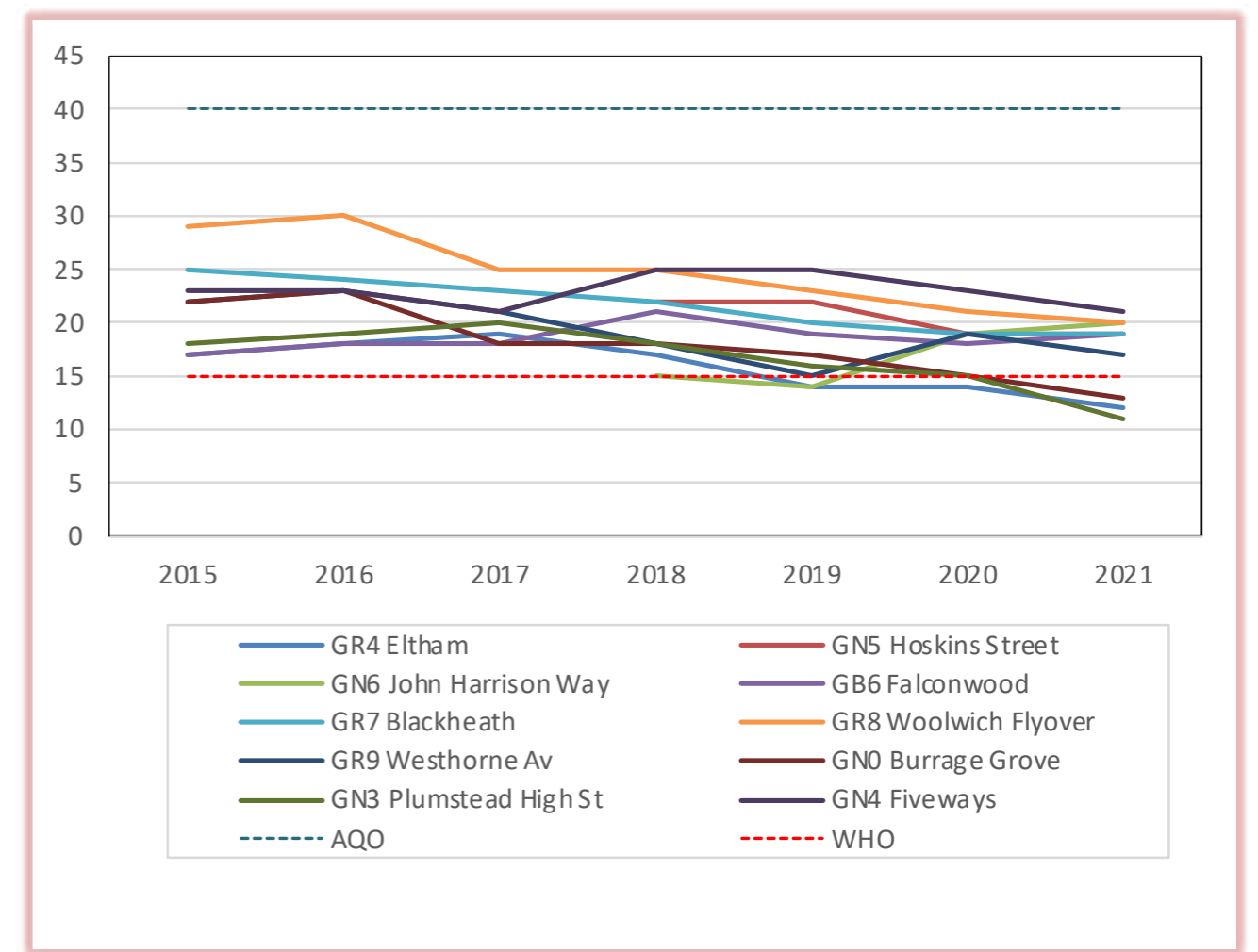


Figure 10 Annual Mean PM₁₀ Automatic Monitors 2015 -2021



Particulate Matter, PM₁₀

Similarly, PM₁₀ monitoring across Royal Greenwich indicates a general trend of reducing levels and no exceedance of the UK annual 40 µg/m³ annual AQO, see Figure 10 below.

From both measured levels and modelling data, the Royal Borough of Greenwich is comfortably meeting the current UK air quality annual and 24-hour objectives for particulate matter (PM₁₀).

However, following the 2021 revision of the WHO PM₁₀ guideline levels (15µg/m³ annual mean and the 45µg/m³ 24-hour mean) the difference between the UK legal objective and guideline levels has increased further. All except three monitoring sites exceed the new levels.

Particulate Matter, PM₁₀

PM_{2.5} monitoring data across the borough shows a similar trend to that of the other two pollutants of reducing levels over the past seven years. Despite the reduction in emissions, concentrations of particulate matter (PM_{2.5}) are still exceeding the new (2022) UK 10 µg/m³ annual average AQO level at some of our measurement locations. The date by which to achieve the UK objective is 2040. In the London Environment Strategy, the Mayor of London has committed to meeting the previous WHO guideline limit of 10µg/m³ across London by 2030.

In addition, following the 2021 WHO air guideline levels revisions, the new PM_{2.5} guideline level is even lower, at 5µg/m³.

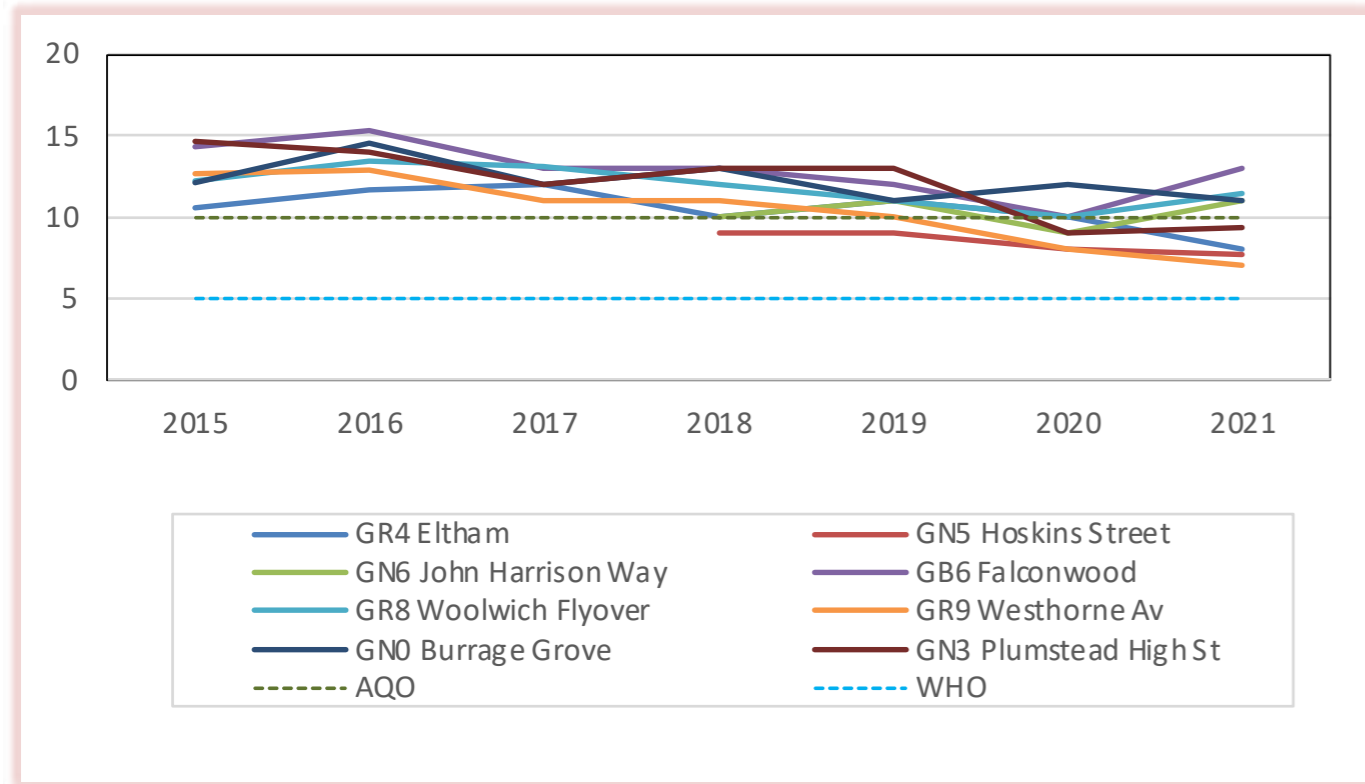
Figure 11 overleaf, similar to emissions of NO₂ and PM₁₀, shows the trend between 2015-2021 in reducing emissions of particulate matter (PM_{2.5}).

As referenced earlier, following the London Inner South Coroner's Court two-week inquest in December 2020 concerning the tragic death of nine-year-old Ella Kissi-Debrah in February 2013, its 'Report to Prevent Future Deaths' (prior to the new UK PM_{2.5} lower AQO) raised concerns that:

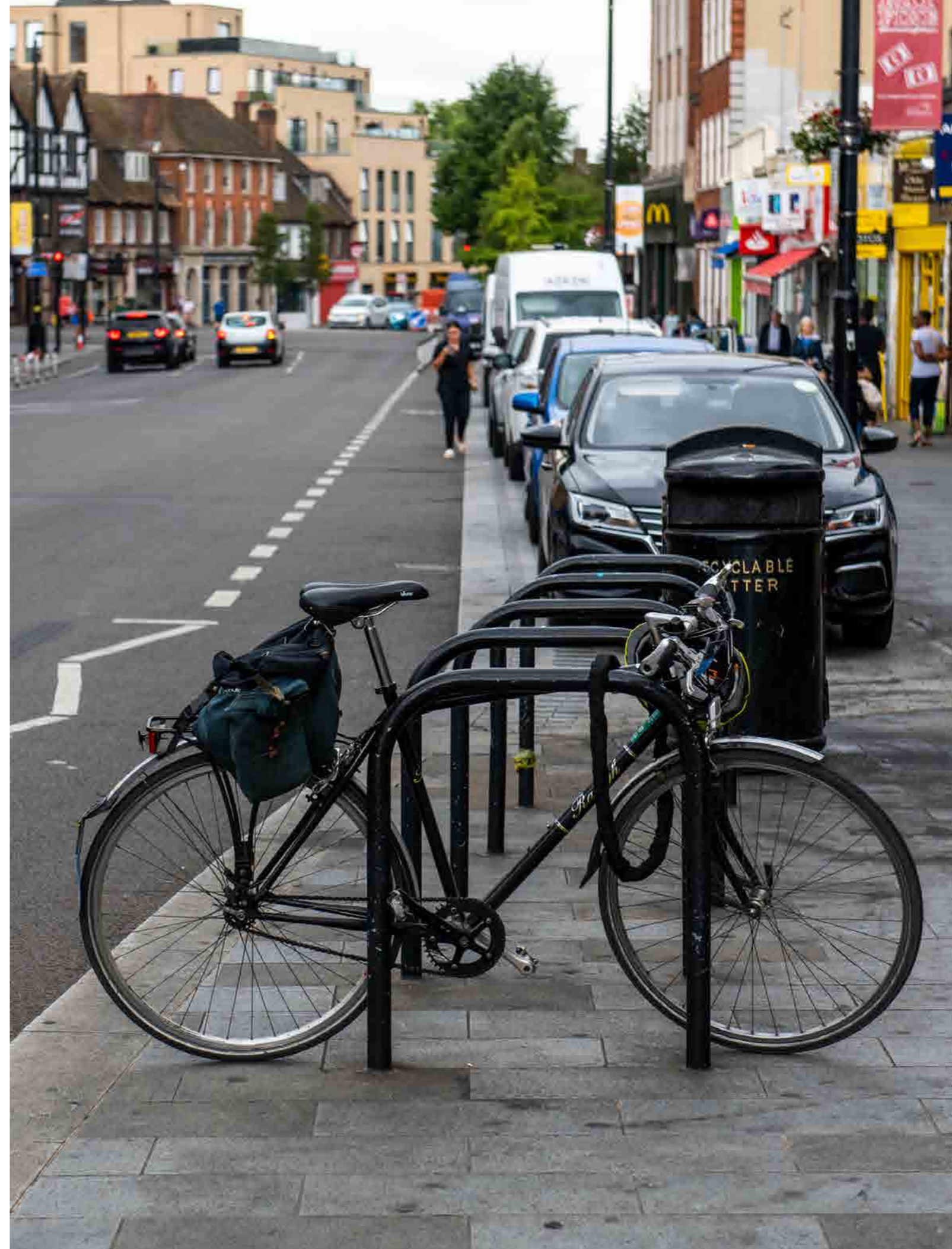
"The national limits for Particulate Matter are set at a level far higher than the WHO guidelines. The evidence at the inquest was that there is no safe level for Particulate Matter and that the WHO guidelines should be seen as minimum requirements. Legally binding targets based on WHO guidelines would reduce the number of deaths from air pollution in the UK"²².

²² <https://www.judiciary.uk/wp-content/uploads/2021/04/Ella-Kissi-Debrah-2021-0113-1.pdf>

Figure 11 Annual Mean PM_{2.5} Automatic Monitors 2015-2021



Measure	Action
RBG1.1	We will maintain our existing automatic and diffusion tube monitoring within the borough and ensure a high standard of data capture.
RBG1.2	We will explore opportunities to engage and work with schools and community groups to undertake their own air quality monitoring.
RBG1.3	We will prepare Annual Status Reports (ASRs) detailing progress against each of the AQAP measures and ensure the Royal Borough of Greenwich's AQAP is formally reviewed and updated, as a minimum, every five years.
RBG1.4	To ensure that the measures contained within this action plan are integrated across council policies and projects, this and future AQAPs will be signed-off, and future Annual Status Reports reviewed, by both the Director of Public Health and Assistant Director of Transport.
RBG1.5	We will work collaboratively across all relevant departments including: Environmental Health, Public Health, Regeneration, Planning and Building Control, Transport, Procurement, Sustainability, Fleet and Waste Services, and Communications to improve air quality in the borough and reduce exposure to air pollution.
RBG1.6	We will explore opportunities to work more collaboratively with our Air Quality Partners: the Mayor of London, the Environment Agency, the Port of London Authority and our neighbouring boroughs: Lewisham, Bromley, Bexley, Barking and Dagenham, Newham and Tower Hamlets.



Theme 2 - Reducing emissions from developments and buildings

As can be seen from the emission source contribution charts presented earlier, commercial heat and power and domestic heat and power; each account for 21% and 7% of NOx emissions within the borough respectively.

Construction works (site operations and machinery emissions) are also a significant source of PM₁₀ and PM_{2.5} contributing 26% and 6% respectively.

Biomass burning, which includes domestic wood burning, is shown to contribute an estimated 7% and 16% of PM₁₀ and PM_{2.5} respectively within the borough. The contribution of commercial cooking to levels of PM_{2.5} within Royal Greenwich has been estimated at about 9%.

Industrial processes operating within the borough contribute an estimated 5% NOx, 7% PM₁₀ and 16% PM_{2.5}.

Reducing emissions from construction sites and machinery

The main contributors of air pollution associated with demolition and construction activities within the borough are from the fugitive dust emissions from on-site activities; the emissions from on-site non-road mobile machinery (NRMM); the emissions from heavy goods vehicles (HGVs) and light duty vehicles (LDVs) supporting the development.

The control of dust from site activities is key to reducing localised emissions of PM₁₀. Effective implementation of well-established good industry practice dust management and monitoring strategies are therefore key.

The percentage contribution of construction machinery emissions to NOx and PM₁₀ emissions within the borough is expected to increase as emissions from road transport progressively falls over future years. Engines used in NRMM, like road vehicles, are subject to improving emissions limits. However, their transition to zero emissions will lag behind road vehicles.

The Mayor of London's NRMM Low Emission Zone (LEZ) scheme sets minimum emission standards for equipment used on construction sites with a higher standard required in London's Central Activities Zone (CAZ) and Opportunity Areas²³, namely Greenwich

Peninsula; Charlton Riverside; Woolwich and Thamesmead and Abbey Wood.

Construction related Heavy Goods Vehicles (HGVs >3.5 tonnes) and Light Duty Vehicles (LDVs) are also a key contributor to road traffic emissions.

Silvertown Tunnel

The Silvertown Tunnel is a new twin-bore, cross-river road tunnel that will link the Greenwich Peninsula and Silvertown; a major construction project within the borough at least until 2025. Construction of the scheme follows the requirements stipulated in the Silvertown Tunnel Code of Construction Practice (CoCP)²⁴ and specifically in relation to air quality, the Air Quality Management Plan – Greenwich²⁵.

The Silvertown Tunnel Implementation Group (STIG) is made up of representatives from affected boroughs (including Greenwich), the GLA and Highways England. We input into the STIG on matters related to planning and operating the Silvertown Tunnel scheme as well as the Monitoring and Mitigation Strategy (MMS) (including air quality) and engagement on construction activity.

Measure	Action
RBG2.1	We will publish and enforce a Code of Construction Practice (CoCP) stipulating air quality minimum standards (and other requirements e.g., noise) expected of construction activities carried out within Royal Greenwich to ensure compliance with industry good practice.
RBG2.2	We will review, revise and implement our air quality related standard planning conditions to ensure construction sites within the borough are suitably assessed, monitored and managed in line with good industry practice including the GLA NRMM LEZ scheme requirements.
RBG2.3	We will work with utility companies and statutory undertakers working on the borough's road network to ensure compliance with good industry practice and the NRMM LEZ requirements.
RBG2.4	We will work with the relevant parties to ensure compliance with the air quality provisions of the Silvertown Tunnel CoCP including the NRMM LEZ requirements.

Development control and Air Quality Neutral Policy

As referenced earlier, Policy SI1 (part B) of the London Plan requires that development proposals [within Royal Greenwich] should not lead to a deterioration in air quality; create areas that exceed air quality limits or delay compliance or create unacceptable risks of exposure. In order to meet these requirements, as a minimum:

- development proposals must be at least Air Quality Neutral
 - development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retrofitted mitigation measures
 - major development²⁶ proposals must be submitted with an Air Quality Assessment
 - development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.
- At the time of writing the Air Quality Neutral guidance remained in draft for consultation, published November 2021²⁷.

Measure	Action
RBG2.5	We will continue to require Air Quality Assessments for all major developments in the borough.
RBG2.6	We will require all building developments within the borough to comply with the Mayor of London's Air Quality Neutral Standard.
RBG2.7	We will require all development proposals within the borough's defined Air Quality Focus Areas demonstrate that design measures have been proposed and implemented to minimise exposure to poor air quality.
RBG2.8	We will publish Air Quality Planning Guidance to support developers to understand our air quality and planning requirements within the borough.

²³ Opportunity Areas are London's major source of brownfield land which have significant capacity for development – such as housing or commercial use - and existing or potentially improved public transport access.

²⁴ <https://tfl.gov.uk/corporate/publications-and-reports/silvertown-tunnel-construction-documents>

²⁵ <https://content.tfl.gov.uk/air-quality-management-plan-greenwich-final-redacted.pdf>

²⁶ Generally, major developments are: Development of dwellings where 10 or more dwellings are to be provided, or the site area is 0.5 hectares or more; Development of other uses, where the floor space is 1,000 square metres or more, or the site area is 1 hectare or more.

²⁷ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance/air-quality-neutral-aqn-guidance>

Master planning and Air Quality Positive approach

The Mayor of London's Air Quality Positive London Plan Guidance explains how to apply the air quality positive approach to large scale developments required by Policy SI1 (part C) of the London Plan. This approach aims to ensure that these types of developments are designed and built, as far as is possible, to improve local air quality and reduce the extent to which the public are exposed to poor air quality.

At the time of writing, the Air Quality Positive guidance remained in draft for consultation, published November 2021²⁸.

Air Quality Positive should be applied at the plan making stage to:

- masterplans (for example Supplementary Planning Documents)
- development briefs that include large-scale development sites that are likely to be subject to an Environmental Impact Assessment.

An Air Quality Positive (AQP) Statement should be produced as part of the evidence base outlining the Air Quality Positive approach taken. It is closely linked to other policies in the London Plan, such as Healthy Streets, Green Infrastructure and energy master planning.

Measure	Action
RBG2.9	We will ensure an Air Quality Positive approach is applied to future masterplans prepared in Royal Greenwich and large-scale developments requiring an Environmental Impact Assessment.

Reducing emissions from commercial kitchens

The contribution of commercial cooking to levels of PM_{2.5} within the Royal Borough of Greenwich has been estimated at about 9%. In the absence of current and established guidance on the reduction of PM_{2.5} from commercial kitchens we will use our powers under the current planning and statutory nuisance regimes in the management and reduction of commercial cooking odours as an interim proxy to also manage/reduce PM_{2.5}.

Relevant planning applications and statutory nuisance investigations should be supported by an odour assessment undertaken in accordance with recognised industry guidance²⁹: Although neither guidance is statutory, they provide current industry best practice techniques for the assessment and mitigation of odours from commercial kitchen exhaust systems. The Defra / EMAQ+ risk assessment process uses defined assessment criteria to determine a significance score and define the impact odour risk. This score then informs the odour control requirements of a proposed system.

Measure	Action
RBG2.10	We will require all relevant commercial kitchen planning applications and statutory nuisance investigations to be supported by a risk-based odour assessment to identify the most appropriate odour control measures and filtration systems to be employed.

²⁸ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance/air-quality-positive-aqp-guidance>

²⁹ Defra, Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, January 2005 (withdrawn September 2017). Note: the Defra guidance was subsequently updated in September 2018 by EMAQ+ (Ricardo-AEA Limited) and remains current. 'Control of Odour and Noise from Commercial Kitchen Exhaust Systems'; and Institute of Air Quality Management (IAQM), Guidance on the assessment of odour for planning, May 2014

Approved solid fuels and exempted fireplaces – Smoke Control Area (SCA)

The whole of the Royal Greenwich is a smoke control area, a legally defined area declared under the provisions of the Clean Air Act 1993, where only approved solid fuels or exempted appliances (e.g. wood burning stoves) can be used within buildings. Under the Environment Act 2021, enforcement relating to emissions of smoke from chimneys within a smoke control area was simplified from a criminal offence to a quicker and more proportionate civil penalty regime. It also strengthened the offences in relation to the sale of certain solid fuels for use in smoke control areas. The sale of wet wood sold in small volumes (under 2m³) has been phased out in

England since May 2021 and must be certified as 'Ready to Burn'³⁰. Wood sold in volumes over 2m³ will not need to be certified as 'Ready to Burn', but they must be sold with advice on drying and an explanation of the issues of burning wet wood. At the beginning of 2022 the new Ecodesign regulations also came into force, requiring all new stoves to meet tighter emissions standards.

Better community awareness of the Clean Air Act provisions is an important step to tackling PM₁₀ and PM_{2.5} emissions from wood burning stoves within the borough.

Measure	Action
RBG2.11	We will continue to raise awareness about Royal Greenwich's Smoke Control Area requirements on the council's website and enforce the provisions of the Clean Air Act.
RBG2.12	Through promotion on the council's website and active engagement at the point of sale with local suppliers of fuels and appliances, we will raise awareness of the 'Ready to Burn' scheme and 'Eco Design' stoves regulations.

Regulation of industrial processes

As highlighted earlier, industrial processes operating within the borough contribute an estimated 5% NOX, 7% PM₁₀ and 16% PM_{2.5} emissions. The Royal Borough of Greenwich, along with the Environment Agency, regulate a wide range of industrial premises within the borough through an environmental permitting regime³¹ separate to the LLAQN. Operators of such premises carry out their processes, such as concrete crushing and waste operations, concrete batching and metal processing in accordance with conditions stipulated

in their permit. Council officers or the Environment Agency enforce these conditions through regular compliance inspections and other enforcement routes. The council sometimes receives complaints about such regulated premises. Where such complaints relate to one regulated by the EA, we coordinate our investigations closely with them and are committed to continuing and strengthening a collaborative approach to regulation within the borough, see measure RBG1.5.

³⁰ <https://www.readytoburn.org/>

³¹ <https://www.gov.uk/topic/environmental-management/environmental-permits>

Delivery and promotion of energy efficiency retrofitting projects

Heating and powering the commercial and domestic building stock in Royal Greenwich contributes significantly to NOX emissions, accounting for more the 25%. Closely related, the Royal Borough of Greenwich's Carbon Neutral Plan estimates that heat and electricity used in buildings in the borough accounted for 64% of carbon dioxide (CO2) emissions in 2019. Emissions from homes alone were 41% of the borough's total. Addressing this source of both air pollution and carbon emissions is a key priority for the borough to improve air quality and become carbon neutral by 2030. Achievement of both aims will require a combination of improvements to buildings' energy efficiency and replacement of gas boiler heating systems with renewable energy technologies and lower carbon alternatives. The Royal Borough of Greenwich has previously delivered and continues to explore opportunities to improve and support improvement of its building stock through energy efficiency and retrofit schemes.

The Sustainable Warmth Competition

The Sustainable Warmth Competition (SWC) run by the Department for Business, Energy and Industrial Strategy commits to investing around £500 million to help local authorities to upgrade energy inefficient homes of low-income households. Through the SWC the Royal Borough of Greenwich recently secured funding worth £2.8m. The scheme will focus on those homes with poor energy performance, which cost the most to heat, and will be delivered in partnership with energy company E.ON. Each successful resident could claim a grant of up to £10,000 to make improvements

including solid or cavity wall insulation, solar panels, loft or roof insulation, and installing heat pump systems.

Retrofit accelerator programmes

The Mayor of London operates two retrofit accelerator programmes for homes and workplaces which involve using new technology on old buildings to make them more energy efficient. These programmes support the target to cut carbon emissions in London by 60% by 2025. As homes and workplaces account for around 78% of CO2 emissions in London, and with 80% of the existing building stock likely to still be in place in 2050, it is important to improve the energy performance of these buildings to cut costs and carbon. It is part of the Mayor's Energy for Londoners programme and is designed to speed up the pace of cutting carbon emissions and achieving zero carbon by 2030.

Retrofit Accelerator – Homes (formerly known as RE NEW) provides London boroughs and housing associations the technical expertise they need to kick-start 'whole-house' retrofit projects across the capital. It also helps build the supply chain and business case to accelerate the retrofit programme for private homes. It offers end-to-end technical support including stock-opportunity analysis, project development, procurement sourcing of finance and funding/business case development.

Retrofit Accelerator – Workplaces (formerly known as 'RE:FIT') is part of the Mayor's Energy for Londoners programme helping to cut energy consumption from schools, universities, hospitals, leisure centres and museums to implement retrofit projects and achieve large financial savings. It provides free technical assistance and support and a framework of pre-vetted Energy Service Companies (ESCOs). It supports energy conservation, efficiency and energy generation schemes (including heat networks).

Measure	Action
RBG2.13	We will continue to seek improvements in our existing building stock within the borough through energy efficiency and retrofit projects and explore future funding opportunities where available.
RBG2.14	We will use and promote the 'Retrofit Accelerator – Homes' and 'Retrofit Accelerator – Workplace' programmes to encourage the uptake of energy efficiency retrofitting projects in the borough's workplaces and houses.



Theme 3 - Public health and awareness raising

As referenced earlier, one of the key concerns raised by the London Inner South Coroner's Court, following the December 2020 inquest into the tragic death of nine-year-old Ella Kissi-Debrah in February 2013, in its 'Report to Prevent Future Deaths' was that:

"There is a low public awareness of the sources of information (such as UK-Air website) about national and local pollution levels. Greater awareness would help individuals reduce their personal exposure to air pollution. It was clear from the evidence at the inquest that publicising this information is an issue that needs to be addressed by national as

well as local government. The information must be sufficiently detailed and this is likely to require enlargement of the capacity to monitor air quality, for example by increasing the number of air quality sensors."¹⁶

People with asthma, emphysema, bronchitis, heart disease and angina are more at risk from high levels of air pollution. Raising public awareness about air pollution and its impacts for all who live, work and visit the borough, especially the most vulnerable, through effective communication will be a key method of promoting behaviour change and reducing personal exposure to air pollution.

Air quality information and monitoring data

The Royal Borough of Greenwich uses a range of communication channels to raise awareness about the detrimental health impacts of air pollution. The council's website³² has dedicated pages to the issue of local air quality including the provision of real-time monitoring data, actions the council is taking to improve air quality and the actions that both businesses and individuals can take.

Londonair

Londonair³³ is the website of the London Air Quality Network (LAQN) and shows air pollution in London and southeast England. The Royal Borough of Greenwich's ten real-time continuous monitoring stations form part of the LAQN and the monitoring data can be found on the website.

High pollution alert service

airTEXT³⁴

airTEXT (www.airtext.info) is a free service for members of the public which provides air quality alerts by text message, email and voicemail and 3-day forecasts of air quality, pollen, UV and temperature across Greater London. The Royal Borough of Greenwich has supported the service along with other London boroughs and public bodies for many years.

The airTEXT service provides information on pollution levels in the borough using 'low', 'moderate' and 'high' bandings. Whenever moderate or high pollution levels are expected, subscribers to airTEXT receive a text message, call or voicemail. This enables recipients to respond, if necessary, for example by taking a different route/mode of transport to work, keeping their medication with them or not exercising outside on certain days.

Measure	Action
RBG3.1	We will continue to raise awareness about the detrimental health effects of air pollution and ensure information regarding local air quality is kept under review and readily available to the local community through the council's own website and social media channels.
RBG3.2	We will continue to support the airTEXT pollution alert service and promote the service more widely to local GPs and pharmacies along with promotion through the council's website.

Promotion of active travel

We recognise we need to make Royal Greenwich's streets and public spaces more attractive and inclusive, to encourage people to walk and cycle, and reduce car use. More investment in active travel infrastructure is needed, see the 'Cleaner Transport' section later, but this needs to be supported by promotion of changes in travel behaviour to encourage more

people to walk and cycle and understand the health benefits.

We want to engage more with our local community to promote walking and cycling routes on our website and through other existing channels such as GP surgeries, sports facilities, schools, and local community groups.

Measure	Action
RBG3.3	We will continue to promote and encourage more walking and cycling in the borough.

Transport for London (TfL) STARS accredited travel planning programme

STARS – Sustainable Travel: Active, Responsible, Safe³⁵ is TfL's accreditation scheme for London schools and nurseries. STARS inspires young people to travel to school sustainably, actively, responsibly and safely by championing walking, scooting and cycling. There are three levels of STARS accreditation: bronze, silver and gold. The level the school achieves depends on how successful they have been in reducing car use

and increasing sustainable travel and how many travel activities the schools complete. STARS supports the Healthy Streets Approach³⁶, to encourage more Londoners to walk, cycle and use public transport.

Within Royal Greenwich we are proud to have 37 STARS schools with over 24 having now reached gold status.

Measure	Action
RBG3.4	We will continue to promote and encourage the borough's schools to engage with the TfL STARS scheme and gain accreditation.

³² https://www.royalgreenwich.gov.uk/info/200328/air_quality/2111/air_quality/5

³³ <https://www.londonair.org.uk/LondonAir/Default.aspx>

³⁴ <https://www.airtext.info/>

³⁵ <https://stars.tfl.gov.uk/>

³⁶ <https://www.london.gov.uk/what-we-do/health/transport-and-health/healthy-streets>

Theme 4 - Delivery servicing and freight

Freight services

Business freight

Both the Royal Borough of Greenwich Transport Strategy 2022 to 2032 and Third Transport Implementation Plan 2019 recognise that the movement of goods by road through the borough is a major contributor to poor air quality – especially in areas where there is a high density of goods vehicles and the potential for congestion and delay – for example in the approaches to the Blackwall Tunnel and the Woolwich Ferry.

As detailed earlier the Transport Strategy sets out five key themes each with specific objectives and policies which describe how we will achieve our vision for transport in Royal Greenwich. Theme 4: “Economic prosperity for all” details objectives aimed at sustainably reducing the impact of freight services on traffic within the borough through the exploration of initiatives such as:

- last mile deliveries – these usually entail journeys on local roads in vehicles no bigger than small vans (preferably cargo bikes and e-cargo bikes, e-quads and pedestrian-couriers
- consolidation centres / delivery hubs – where numerous suppliers have goods delivered directly to a place storage and subsequently combined into a single fuller load for the onward journey
- promoting the use of the river for freight – thereby reducing pressure on borough’s road and kerb space
- retiming of deliveries and collections – to avoid peak traffic flows during the day.

Measure	Action
RBG4.1	In collaboration with Royal Greenwich’s business community, we will explore opportunities to implement sustainable freight initiatives within the borough exploring solutions such as last mile delivery, consolidation centres, river freight and delivery retiming.

New development freight

In addition to the freight associated with business service delivery within the borough we recognise that freight movements associated with new developments can also have a significant impact on traffic and

local air quality. As detailed earlier we recognised the opportunity we have to influence sustainable construction practices but also their servicing through the planning system.

Measure	Action
RBG4.2	As part of the proposed Royal Greenwich Code of Construction Practice (CoCP) (Measure RBG2.1) stipulating air quality minimum standards expected of construction activities within the borough a Traffic Management Plan will be a requirement for all relevant developments.

Procurement – social value framework

The Royal Borough of Greenwich provides businesses of all sizes with a wide range of commercial opportunities purchasing an extensive range of products and services.

There are several core values that influence our business needs and contribute to our definition of value for money. We promote sustainable development through procurement which means that economic, environmental and social objectives are pursued together. As a public body we have a duty to seek social value when undertaking commissioning and procurement exercises. In Royal Greenwich, social value means:

“additional community benefits over and above core requirement realised through a commissioning or

procurement process/exercise, which benefits and contributes to the wellbeing and improvements of individuals or a community in an area served by the Royal Borough of Greenwich”.

The kind of outcomes which represent our social value outcomes and link to our priorities are listed in our Social Value Framework³⁷ and Social Value policy. In line with one of eight corporate themes ‘A Cleaner Green Greenwich’ we will:

“Take action to improve air quality, encourage renewable energy and green choices in the borough.”

This includes sourcing of low carbon energy wherever possible and phasing out the use of fossil fuels and transitioning to zero or ultra-low emission vehicles.

Measure	Action
RBG4.2	We will introduce the following minimum emission standards in contracts for the use of Heavy Goods Vehicles (HGVs) and Light Duty Vehicles (LDVs) and Cars: <ul style="list-style-type: none"> • HGVs (>3.5T) – Euro VI • LDVs (≤3.5T) and Cars – Zero emission, or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol) • Cars – Zero or Ultra Low Emission Vehicle (ULEV), or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol)

RBG4.3	We will introduce minimum emission standards in construction and works contracts for construction machinery (Non-road Mobile Machinery – NRMM) aligned with the Mayor of London’s NRMM Low Emission Zone Central Activities Zone (CAZ) and Opportunity Areas standard but be applicable to all contracts across the whole borough.
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³⁷ https://www.royalgreenwich.gov.uk/info/200209/how_to_do_business_with_the_council/313/how_to_do_business_with_the_royal_borough_of_greenwich

Theme 5 - Reducing emissions from the council fleet

The Royal Borough of Greenwich's vehicle fleet supports a diverse range of council services including caretaking, repairs and investment, parks, estates and open spaces, telecare, passenger services, disability and home improvement, and parking enforcement.

Emissions reduction

There are approximately 520 vehicles within the fleet and good progress has been made over recent years upgrading the Heavy Goods Vehicles (HGVs) and LDVs (Diesel) to Euro VI and Euro 6 respectively (nearly 90%). The fleet is also increasing the number of electric vehicles, currently over 30. The Carbon Neutral Plan sets a target for the council's fleet to be 100% zero emissions vehicles 2030. The Electric Vehicle Policy Framework Action Plan published to support the Transport Strategy sets out more detail on how this will be done: w emission vehicles.

Fleet Operator Recognition Scheme (FORS)³⁸

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme for fleet operators which aims to raise the level of quality within fleet operations, and to demonstrate which operators are achieving exemplary levels of best practice in safety, efficiency, and environmental protection.

FORS is built around continual improvement, where higher operational standards are achieved through progressive levels (Bronze, Silver and Gold) in the scheme. FORS accreditation goes beyond basic legal compliance and is supplemented by driver and management training, monitoring and auditing to drive efficiencies and improve service levels. The Royal Borough of Greenwich is currently a Bronze level FORS Accredited Operator.

Measure	Action
RBG5.1	Our vehicle fleet will meet the following minimum emission standards: <ul style="list-style-type: none"> HGVs (>3.5T) – Euro VI LDVs (≤3.5T) – Euro 6 (Diesel) or Euro 4 (Petrol).
RBG5.2	We will continue to replace and upgrade our vehicle fleet with zero emission vehicles when reasonably feasible to achieve our goal of 100% zero emissions vehicles by 2030.
RBG5.3	We will maintain a minimum Bronze level as a FORS Accredited Operator.

³⁸ FORS Homepage - FORS - Fleet Operator Recognition Scheme (fors-online.org.uk)

Theme 6 - Localised solutions

Green Infrastructure

We have more than 50,000 trees in Royal Greenwich including nearly 15,000 street trees. There are around 300 open spaces within Royal Greenwich, totalling 1,390 hectares of land, which is nearly a third of the borough's total area. Royal Greenwich contains many valued areas of

open space, including Blackheath and Greenwich Park, which is one of the largest green spaces in Southeast London. Since 2020 we have spent nearly £1 million rejuvenating our parks and open spaces so that they can be even more enjoyable for residents and visitors.

Green infrastructure approach

We recognise the importance of the borough's green infrastructure, not least on improving air quality and reducing exposure to air pollution, but also for promoting healthier living for our community, encouraging walking and cycling, lessening the impacts of climate change, and enhancing biodiversity, to name but a few benefits.

Policy G1 Green infrastructure in the Mayor London's London Plan, partly outlined below, sets out the green infrastructure approach and provides a framework for how this can be assessed and planned for.

"A – London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.

B – Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with Part A.

C – [The Royal Borough of Greenwich] Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to:

1. identify key green infrastructure assets, their function and their potential function
2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions."

Green Infrastructure Framework

The Green Infrastructure (GI) Framework³⁹, led by Natural England, is a commitment in the Government's 25 Year Environment Plan, see earlier. It supports the greening of towns and cities and connections with the surrounding landscape and can help to address issues of social inequality and environmental decline, whilst also making better places to live.

The elements of the GI Framework – the GI Principles and GI Mapping – aim to help local planning authorities and developers meet requirements in the National Planning Policy Framework to consider GI in local plans and in new development. The Framework is also being developed to enable other organisations and groups such as parks and green space managers and local communities to think more about GI and plan for its creation or improvement.

³⁹ <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

Tree canopy cover

The Mayor of London in his Environment Strategy 2018 set a target of increasing tree canopy cover in London by 10% by 2050 in recognition of the important role of London’s urban forest and for Londoners to better experience the environmental, social and economic benefits as briefly outlined earlier, and more.

Policy G7 Trees and woodlands, in the Mayor of London’s London Plan, outlined below, sets out the Green Infrastructure Approach and provides a framework for how this can be assessed and planned for.

“A – London’s urban forest and woodlands should be protected and maintained, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London’s urban forest – the area of London under the canopy of trees.

B – In their Development Plans, boroughs should:

1. protect ‘veteran’ trees and ancient woodland where these are not already part of a protected site¹³⁹
2. identify opportunities for tree planting in strategic locations.

C – Development proposals should ensure that, wherever possible, existing trees of value are retained. If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.”

A tree canopy survey of Royal Greenwich would provide an estimate of the ground area covered by tree canopy including other vegetation associated with the borough’s urban forest. The survey would enable the calculation of the percentage canopy cover of the borough’s area as a simple measure of the extent of the urban forest and the magnitude of services it provides. It would provide baseline information about the extent of tree cover present within the borough and provide a starting point to enable more effective evidence-based management of our urban forest. The survey would provide the initial step necessary for prioritising future tree planting, future canopy goals and targets, implementing management plans and longer-term GI strategy.

Measure	Action
RBG6.1	We will use the new Green Infrastructure Framework to inform our revised Local Plan and our future Green Infrastructure Strategy.
RBG6.2	We will commission a baseline tree canopy survey to better inform the value and benefits of Royal Greenwich’s trees and aid the development of our future Green Infrastructure Strategy.
RBG6.3	We will plant 5,000 trees by the end of 2026 as part of the strategy to increase tree canopy within Royal Greenwich.
RBG6.4	We will prepare a Green Infrastructure Strategy and ensure GI supports both Air Quality Neutral and Air Quality Positive policy approaches to development in the borough and reduced exposure to air pollution.
RBG6.5	We will combine ‘Green Infrastructure’ and the ‘Healthy Streets’ approach in public high street design to create greener walking and cycling routes to encourage active travel options away from the borough’s most polluted streets.

¹³⁹ Forestry Commission/Natural England (2018): Ancient woodland and veteran trees; protecting them from development, <https://www.gov.uk/guidance/planning-applications-affecting-trees-and-woodland>

Theme 7 - Cleaner transport

As can be seen from the emission source contribution charts presented earlier, road transport emissions are the largest individual source of NOx PM₁₀ and PM_{2.5} emissions in the borough contributing 56%, 30% and 34% respectively. The expansion of the Mayor London’s Ultra Low Emission Zone (ULEZ) now partially covers Royal Greenwich and will aid the reduction of all three pollutants. Our aim is to continue to significantly cut transport emissions in the borough through reducing vehicle use, prioritising active and sustainable travel, and encouraging cleaner vehicles.

As identified earlier, the Royal Borough of Greenwich’s Transport Strategy explicitly acknowledges the significant role local transport policy has on tackling air pollution. Reducing transport related emissions and reducing public exposure to air pollution within the borough

requires multiple interventions and initiatives. The key to this is reducing our reliance as a community on traditional petrol/diesel vehicles, but equally adopting more sustainable travel alternatives.

The Transport Strategy and Local Implementation Plan present evidence-based proposals for transport improvements within the borough. As referenced earlier, the supporting Policy Framework Actions Plans detail the broad and varied range of interventions and initiatives aimed at achieving the borough’s transport vision through both incentives and disincentives. This section of the AQAP highlights a number of those transport related interventions and initiatives which, among other goals, target improvement in air quality within the borough (in addition see, Delivery Servicing and Freight).

Incentivising alternative sustainable travel

The Mayor of London’s strategic mode share target is for 80% of all trips in London to be made by foot, cycle or public transport by 2041. The Royal Greenwich Carbon Neutral targets a 45% reduction in car use in the borough due to modal shift to public transport and active travel by 2030.

Active travel

We recognise we need to make Royal Greenwich’s streets and public spaces more attractive and inclusive, to encourage people to walk and cycle, and reduce car use. Currently, over a third (36%) of residents’ trips are made by car or motorcycle, with 30% walking and 2% cycling.

More investment in active travel infrastructure supported by promotion of travel behaviour change

(see ‘Public Health and Awareness Raising’ section) is needed to encourage more people to walk and cycle. Much of the cycling network within Royal Greenwich is very fragmented; this acts as a barrier to cycling journeys across the borough. TfL ‘Quiteway Q14’ is the only continuous cycle route running along the north of the borough between Greenwich and Thamesmead and beyond. Despite the fragmented provision, we know there is a desire within our community to engage more in active travel. More schemes providing an integrated cycle network are needed, particularly in growth areas, and in the south and east of the borough where cycling infrastructure is currently limited.

Our Active Travel Policy Framework Action Plan sets out how the Royal Borough of Greenwich will help our community to reduce their reliance on cars and walk or cycle more instead.

Measure	Action
RBG7.1	We will invest and work with TfL to implement the expansion and improvement of cycling infrastructure focussing particularly on the south and east of the borough and designated Opportunity Areas.
RBG7.2	We will deliver the Active Travel Policy Framework Action Plan to support our local community in the transition to reduced reliance on cars and encourage walking or cycling.

Public transport

Royal Greenwich benefits from a varied range of public transport services, rail, underground buses and river services. To the north of the borough the **Jubilee line** serves the Greenwich Peninsula and North Greenwich. The **DLR** services the northeast corner of the borough at Greenwich and at Woolwich Arsenal, both providing connection north of the river. The recently opened **Elizabeth line** with stations at Woolwich and Abbey Wood in the northeast of the borough provides connection to central London and Heathrow Airport. Three **National Rail** lines operated by Southeastern provide east-west routes between Central London and throughout Kent, again in the north of the borough and south in Eltham; **Thameslink** trains also operate across the north of the borough through Greenwich and Plumstead. Several **bus routes** connect Greenwich, Woolwich, Thamesmead and Eltham across the borough. The Thames Clipper river services covering

Greenwich, North Greenwich, Woolwich provide a route west and central London and east to Barking. **River crossings** include the Woolwich ferry and the London Cable Car between Royal Victoria Dock and Greenwich Peninsula and Greenwich and Woolwich **foot tunnels**. From the brief outline of public transport provision above, the north of the borough between Greenwich and Woolwich is well served by public transport. Transport analysis presented in the Transport Strategy shows that north-south transport routes are limited as well as links to Thamesmead and Abbey Wood Opportunity Areas which are among the most deprived parts of the borough. Our aim is to prioritise such areas with low existing public transport and connectivity and continue to support a reduction in vehicle use.

Measure	Action
RBG7.3	We will work with Transport for London to support and lobby for public transport improvements across the borough that foster connectivity, particularly north-south connections, and links to Thamesmead and Abbey Wood.

Car clubs

Car clubs offer a membership scheme that enable the benefits of short-term use of a car on a pay-as-you-drive basis without the ongoing costs of owning one. We support the use of car clubs in the borough as they can help reduce car use, they typically use lower emission vehicles and reduce pressure on parking.

We promote the use of car clubs within the borough⁴⁰ as they can support the reduction of car ownership. The car club fleets are typically newer and therefore lower emission vehicles than privately owned cars and

we support the introduction of ever-increasing electric vehicles into the fleet.

There are three car club operators established within Royal Greenwich, Enterprise⁴¹, Zipcar⁴² and Hiyacar. Under the Low Emission Neighbourhood scheme in Greenwich West and Peninsula we worked with Enterprise Car Club to introduce all-electric cars in the car club fleet. Residents of Royal Greenwich can enjoy an exclusive offer of 1-year free membership (saving £60) and £10.00 driving credit.

Measure	Action
RBG7.4	We will continue to promote and support car club providers to encourage membership in Royal Greenwich and the increased use of electric vehicles.

Electric vehicle infrastructure

Approximately 1% of vehicles in Royal Greenwich are currently electric (approximately 1,500 vehicles out of 80,000 total), supported by a network of approximately 300 public charging points. We estimate there will need to be between 1,200 to 2,700 EV charging points in Royal Greenwich by 2030. We recognise this urgent need for the expansion of electric vehicle (EV) infrastructure across the borough with the future phase out of new petrol and diesel car, vans and trucks. The absence of off-street parking in addition to the absence of on-street charge points in residential areas acts as a significant barrier to the uptake of electric vehicles.

As detailed earlier, in the Government's EV Infrastructure Strategy the investment in EV Infrastructure is set to rapidly accelerate. Royal Greenwich, along with all local authorities, will play a vital role in the delivery of EV infrastructure to local communities. Central government grant funding is currently available and set to increase.

- The Office of Zero Emission Vehicles' On-Street Residential Charge (ORCS) point Scheme aims to increase the availability of on-street charge points in residential streets where off-street parking is not available, thereby ensuring that on-street parking is not a barrier to realising the benefits of owning a plug-in EV. The scheme provides local authorities access to grant funding that can be used to part-fund the procurement and installation of on-street EV charge point infrastructure to residential needs.
- The Local EV Infrastructure Fund (LEVI Fund) is a new £450m fund to facilitate the rollout of larger-scale charge point infrastructure projects, including local rapid hubs and larger on-street schemes not captured by ORCS.

Our Electric Vehicle Policy Framework Action Plan sets out the framework for the expansion of charging infrastructure across the borough.

Measure	Action
RBG7.5	We will deliver the Electric Vehicle Policy Framework Action Plan to implement a comprehensive charging infrastructure network across the borough.

Workplace charging scheme

The Office of Zero Emission Vehicle also administers the Workplace Charging Scheme, a voucher-based scheme designed to provide eligible applicants (registered businesses, charities, or public sector organisations) with support towards the upfront

costs of the purchase and installation of EV charge points. The contribution is limited to 75% of purchase and installation costs, up to a maximum of £350 for each socket and up to a maximum of 40 across all sites for each applicant.

Measure	Action
RBG7.6	We will continue to use and promote the Workplace Charging Scheme in the borough to encourage and expand the workplace EV Infrastructure.

⁴⁰ https://www.royalgreenwich.gov.uk/info/200259/transport_and_travel/90/car_club_car_sharing_scheme

⁴¹ <https://www.enterpriseclub.co.uk/gb/en/programs/promotion/Greenwich.html>

⁴² <https://www.zipcar.com/en-gb>

Disincentivising vehicle use and reducing exposure

Low Traffic Neighbourhoods

Low Traffic Neighbourhoods (LTNs) are traffic reduction schemes minimising / restricting through-traffic from using residential neighbourhoods to avoid main roads, while retaining local access for residents, visitors and emergency vehicles. A range of approaches can be used to limit the movement of cars and other vehicles on certain streets whilst also improving conditions for walking and cycling.

Successful LTNs enhance the quality of an area, reduce exposure to air pollution and make walking and cycling safer and more convenient while maintaining essential and emergency access.

Four LTN trials have been implemented within Royal Greenwich in recent years. Using lessons learnt from these trials and engaging early with local communities we will use an evidence-led approach to identify future areas which would most benefit from through-traffic reduction schemes.

In line with an evidence-led approach to future schemes we would implement real-time air quality monitoring in advance of and during any proposed trial implementation, joining the Breathe London⁴³ network for the duration of the proposed period of monitoring.

Measure	Action
RBG7.7	We will engage with local communities and using an evidence-led approach, we will identify areas in Royal Greenwich that would most benefit from the implementation of through-traffic reduction schemes.
RBG7.8	We will support any through-traffic reduction scheme identified for potential implementation with real-time air quality monitoring.

School Streets

In 2019 we implemented our initial School Streets to encourage safer, sustainable and more active ways to travel to school. A School Street is closed to vehicles during drop-off and pick-up times, encouraging families to walk or cycle to school instead. School Streets provide a range of benefits, such as improving local air quality, reducing traffic around schools at peak times, encouraging more physically active journeys to and from school, and reducing congestion outside the school.

- Invicta Primary, Invicta Road and Siebert Road
- Wyborne Primary, Ivor Grove
- Montbelle Primary School, Milverton Way
- Deansfield Primary School, Glenesk Road
- St Thomas More Catholic Primary School, Shortway
- Invicta Primary School (Deptford), Trevithick Street

There are four permanent School Streets within Royal Greenwich:

- De Lucy School, Cookhill Road
- Gordon School, Grangehill Road
- Haimo School, Haimo Road
- St Joseph's School, Commerell Street

We will continue to engage with our school communities and residents to explore the implementation of more School Streets where benefits can be realised.

In line with an evidence-led approach to future schemes we would implement real-time air quality monitoring in advance of and during any proposed trial implementation, joining the Breathe London network for the duration of the proposed period of monitoring.

There are also seven temporary school streets:

- Charlton Manor Primary, Indus Road and Nigeria Road

⁴³ <https://tfl.gov.uk/info-for/boroughs-and-communities/workplace-parking-levies>

Measure	Action
RBG7.9	We will review the lessons learnt from the permanent and temporary School Streets and explore their continuation and expansion to other schools in the borough.
RBG7.8	We will support School Streets identified for potential implementation with real-time air quality monitoring.

Controlled Parking Zones

Controlled Parking Zones (CPZ) aid the management of and demand for vehicle parking spaces within the borough. They work by restricting parking in a location during specific times when vehicles will require a valid permit, pay to park or permission to park for a limited period. The aim of the scheme is to reduce unnecessary car trips and encourage a shift to more sustainable forms of travel.

Currently, approximately 30% of the borough's roads are within a controlled parking zone; the aim is to expand coverage to the whole of the borough and progress an emission-based charging structure to further encourage the transition to electric vehicles.

Measure	Action
RBG7.11	We will expand the coverage of Controlled Parking Zones to the whole borough.
RBG7.12	We will progress an emission-based charging structure to help drive the purchase of low emission vehicles in Royal Greenwich.

Workplace Parking Levy

The Workplace Parking Levy (WPL) is a charging scheme for active workplace parking places. It charges employers and education providers for the number of places they provide that are used by employees, students or other relevant persons. WPLs⁴⁴ are included in the Mayor's Transport Strategy as a means of traffic reduction by encouraging commuters to use more sustainable travel options to get to work

or college. The Mayor of London has prepared statutory guidance for local authorities considering implementing the scheme. There are several steps to take from initially defining the scope of the scheme and its feasibility before developing a business and its implementation; engagement and consultation being key throughout the process.

Measure	Action
RBG7.13	We will investigate the benefits of introducing road user charging measures such as a workplace parking levy.

⁴⁴ <https://tfl.gov.uk/info-for/boroughs-and-communities/workplace-parking-levies>



Development and implementation

Consultation and stakeholder engagement

In revising the Air Quality Action Plan, we have worked with other local authorities, partners, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in Table 2. In addition, we have undertaken the following stakeholder engagement exercises:

- publication of the draft AQAP for Consultation on the council's website
- notification on Commonplace
- engagement with specific business and community groups.

The response to our consultation stakeholder engagement is given in Appendix A.

Table 2 Consultation undertaken

Yes/No	Consultee
	Transport for London and the Mayor of London
	London Borough of Lewisham
	London Borough of Bromley
	London Borough of Bexley
	London Borough of Barking and Dagenham
	London Borough of Newham
	London Borough of Tower Hamlets
	Port of London Authority
	Environment Agency

Steering group

An AQAP steering group was established to inform and review the AQAP. Representatives from the following departments provided input:

- Environmental Health
- Parks and Open Spaces
- Transport
- Fleet and Waste Services
- Sustainability
- Regeneration, Planning and Building Control
- Public Health
- Procurement
- Communications

Following a review of the draft AQAP suggested amendments were incorporated into a revised document. The steering group were broadly supportive of the identified measures. However, securing adequate funding and resources was identified as a key requirement for ensuring successful implementation of proposed measures for the Air Quality Action Plan delivery.



Air Quality Action Plan summary table

Table 3 Air Quality Action Plan summary table

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Air quality monitoring and core statutory duties	RBG1.1	Ensure that automatic and diffusion tube monitoring within the borough is maintained at an appropriate level for local air pollution sources, and pollutants of concern, to ensure sites remain relevant and to achieve a high standard of data capture.	Environmental Health	High	No direct emissions / concentration benefits but critical in terms of understanding emissions and concentrations and the impact of interventions.	Ongoing	Review monitoring locations and ensure they remain relevant and with > 90% annual data capture.
	RBG1.2	We will explore opportunities to engage and work with schools and community groups to undertake their own air quality monitoring.	Environmental Health	Low	No direct emissions / concentration benefits but supports, engagement and awareness raising.	Ongoing	Number of community led monitoring sites.
	RBG1.3	We will prepare Annual Status Reports (ASRs) detailing progress against each of the AQAP measures and ensure the Royal Borough of Greenwich's AQAP is formally reviewed and updated, as a minimum, every five years.	Environmental Health	Low	No direct emissions / concentrations benefits – statutory requirement.	Ongoing	ASRs prepared and submitted to GLA by 30 May each year. AQAP reviewed and revised every 5 years.
	RBG1.4	To ensure that the measures contained within this action plan are integrated across council policies and projects, this and future AQAPs will be signed-off, and future Annual Status Reports reviewed at Director level.	All relevant departments	Low	No direct emissions / concentrations benefits – essential for providing leadership and ongoing delivery of the AQAP.	Ongoing	Signed AQAP and published ASRs.
	RBG1.5	We will work collaboratively across all relevant departments including Environmental Health, Public Health, Regeneration, Planning and Building Control, Transport, Procurement, Sustainability, Fleet and Waste Services, and Communications to improve air quality in the borough and reduce exposure to air pollution.	All relevant departments	Low	No direct emissions / concentrations benefits – essential for providing coordinated ongoing successful delivery of the AQAP.	March 2026	Annual steering group meetings. 100% achievement of actions within AQAP driven by the Steering Group.
	RBG1.6	We will explore opportunities to work more collaboratively with our Air Quality Partners: The Mayor of London, the Environment Agency, the Port of London Authority and our neighbouring boroughs: Lewisham, Bromley, Bexley, Barking and Dagenham, Newham and Tower Hamlets.	Environmental Health	Low	No direct emissions / concentrations benefits – essential for ensuring cross-boundary / London-wide air quality benefits and delivery of the AQAP.	Ongoing	Regular attendance at neighbouring borough steering group meetings. Attendance at GLA led London borough meetings. Annual meetings with the PLA.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Emissions from developments and buildings	RBG2.1	We will publish and enforce a Code of Construction Practice (CoCP) stipulating air quality minimum standards (and other requirements e.g., noise) expected of construction activities carried out within Royal Greenwich to ensure compliance with industry good practice.	Environmental Health / Planning	Low	High	March 2024	CoCP published. CoCP standard planning condition produced. Number of planning applications required to comply with requirements of the CoCP.
	RBG2.2	We will review, revise and implement our air quality related standard planning conditions to ensure construction sites within the borough are suitably assessed, monitored and managed in line with good industry practice, including the GLA NRMM LEZ scheme requirements.	Planning / Environmental Health	Low	No direct emissions / concentrations benefits	March 2024	100% of relevant applications providing a construction dust risk assessment. Construction dust risk assessment, NRMM and monitoring planning conditions produced. Number of planning applications where a construction dust risk assessment has been submitted. Number of planning applications required to monitor for construction dust. Number of sites registered on the Non-Road Mobile Machinery (NRMM) London City Hall website. Number of NRMM compliant sites. Number of sites registered on the Non-Road Mobile Machinery (NRMM) London City Hall website. Number of NRMM compliant sites.
	RBG2.3	We will work with utility companies and statutory undertakers working on the borough's road network to ensure compliance with good industry practice and the NRMM LEZ requirements.	Environmental Health	Low	High	Summer 2023 / ongoing	Number of sites registered on the Non-Road Mobile Machinery (NRMM) London City Hall website. Number of compliance visits. Number of complaints.
	RBG2.4	We will work with the relevant parties to ensure compliance with the air quality provisions of the Silvertown Tunnel CoCP including the NRMM LEZ requirements.	Environmental Health/ Transport	Low	Medium	Spring 2023 / ongoing	Attendance at Silvertown Implementation Group Meetings. Number of joint site compliance inspections.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Emissions from developments and buildings	RBG2.5	We will continue to require Air Quality Assessments for all major developments in the borough.	Planning / Environmental Health	Low	Medium	ongoing	100% of relevant applications providing Air Quality Assessments. Air quality planning guidance published. Number of planning applications where an air quality assessment has been submitted.
	RBG2.6	We will require all building developments within the borough to comply with the Mayor of London's Air Quality Neutral Standard.	Planning / Environmental Health	Low	Medium	Summer 2023	100% of relevant applications providing an Air Quality Neutral Assessment. Air quality planning guidance published. Air Quality Neutral standard planning condition produced. Number of developments compliant with the AQ neutral policy.
	RBG2.7	We will require all development proposals within the borough's defined Air Quality Focus Areas demonstrate that design measures have been proposed and implemented to minimise exposure to poor air quality.	Planning / Environmental Health	Low	Medium	Summer 2023	100% of relevant applications in AQFAs with specific design measures identified to minimise exposure to poor air quality. Number of relevant developments in AQFAs.
	RBG2.8	We will publish Air Quality Planning Guidance to support developers to understand our air quality and planning requirements within the Royal Borough of Greenwich.	Planning / Environmental Health	Low	No direct emissions / concentrations benefits	Summer 2023	Air quality planning guidance published.
	RBG2.9	We will ensure an Air Quality Positive approach is applied to future masterplans prepared in Royal Greenwich and large-scale developments requiring an EIA.	Planning / Environmental Health	Medium to High	High	March 2024 / ongoing	Air quality planning guidance published. Future Masterplans explicitly adopting an Air Quality Positive approach. Air Quality Positive Statement submitted for all relevant environmental impact assessment development.
	RBG2.10	We will require all relevant commercial kitchen planning applications to identify the most appropriate odour control measures and filtration systems to be employed.	Planning / Environmental Health	Low	Medium	Summer 2024	Odour control compliance standard planning condition produced. Number of odour control compliance standard planning conditions included in planning permissions.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Emissions from developments and buildings	RBG2.11	We will continue to raise awareness about the Royal Borough of Greenwich's Smoke Control Area requirements on the council's website and enforce the provisions of the Clean Air Act (CAA).	Environmental Health / Communications	Low	No direct emissions / concentrations benefits	Ongoing	Up to date Clean Air Act requirements published on the council's website. Number of complaints / CAA enforcement visits.
	RBG2.12	Through promotion on the council's website and active engagement at the point of sale with local suppliers of fuels and appliances, we will raise awareness of the 'Ready to Burn' scheme and 'Eco Design' stoves regulations.	Environmental Health / Communications	Low	High	Autumn 2023	Up to date Clean Air Act requirements published on the council's website. Register of local suppliers of fuels and appliances produced. Number of engagement / meetings / site visits to suppliers. Quality of information provided at point of sale.
	RBG2.13	We will continue to seek improvements in our existing building stock within the borough through energy efficiency and retrofit projects and explore future funding opportunities where available.	Housing / Sustainability/Asset Management / Repairs	Medium to High	High	Ongoing	Number of retrofitted properties. Number of retrofit funding applications.
	RBG2.14	We will use and promote the 'Retrofit Accelerator – Homes' and 'Retrofit Accelerator – Workplace' programmes to encourage the uptake of energy efficiency retrofitting projects in the borough's workplaces and houses.	Housing / Sustainability/Asset Management / Repairs	Low	High	Ongoing	Number of retrofit accelerator projects initiated in the borough. Number of retrofitted properties.
Public health and awareness raising	RBG3.1	We will continue to raise awareness about the detrimental health effects of air pollution and ensure information regarding local air quality is kept under review and readily available to the local community.	Public Health / Communications /	Low	No direct emissions / concentrations benefits	Ongoing	Air quality information on the council and partners website reviewed / updated annually.
	RBG3.2	We will continue to support the airTEXT pollution alert service and promote the service more widely to local GPs and pharmacies along with promotion through the council's website.	Public Health / Communications / Environmental Health	Low	No direct emissions / concentrations benefits	Ongoing	Number of registered airTEXT subscribers from Royal Greenwich. Number of GP surgeries and Pharmacies, or other services, promoting airTEXT.
	RBG3.3	We will continue to promote and encourage more walking and cycling in the borough.	Communications / Transport	Low	No direct emissions / concentrations benefits	Ongoing	Number of public awareness and engagement events / initiatives. Leading by example and establish a staff travel plan, with a target for 80% of trips by walking, cycling and public transport, including travel to work and travel for work, by 2025.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Public health and awareness raising	RBG3.4	We will continue to promote and encourage the borough's schools to engage with the TfL STARS scheme and gain accreditation.	Transport	Low	Medium	Ongoing	Increase the total number of schools accredited on the scheme - currently Gold (26), Silver (0), Bronze (7) and Engaged (8) by 10% each year.
	RBG3.5	We will promote and encourage the use of innovative and emerging technologies by local businesses.	Communications / Business Team	Low	Low	Ongoing	Showcase local businesses and their contributions to the borough's air quality improvements through the Greener Greenwich Award as part of the Best of Royal Greenwich Business Awards. Consider introduction of an Air Quality innovation award.
Delivery servicing and freight	RBG4.1	In collaboration with Royal Greenwich's business community, we will explore opportunities to implement sustainable freight initiatives within the borough exploring solutions such as last mile delivery, consolidation centres, river freight and delivery retiming.	Transport	High	High	Ongoing	More robust data set on freight movements in Royal Greenwich. Reduced number of LDVs and HGVs. Number of local consolidation centres established and used by businesses within the borough.
	RBG4.1	A Traffic Management Plan will be a requirement for all relevant developments.	Transport / Planning	Low	Medium	December 2023	Number of Traffic Management Plans submitted.
	RBG4.2	We will introduce the following minimum emission standards in contracts for the use of Heavy Goods Vehicles (HGVs) and Light Duty Vehicles (LDVs) and Cars: <ul style="list-style-type: none"> HGVs (>3.5T) - Euro VI LDVs (≤3.5T) - Zero emission, or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol) Cars – Zero or Ultra Low Emission Vehicle (ULEV), or where not reasonably feasible, Euro 6 (Diesel) or Euro 4 (Petrol). 	Procurement	Low	Medium	December 2023	Vehicle emission compliance contracts key performance indicator (KPI).
	RBG4.3	We will introduce minimum emission standards in construction and works contracts for construction machinery (Non-road Mobile Machinery (NRMM)) aligned with the Mayor of London's NRMM Low Emission Zone Central Activities Zone (CAZ) and Opportunity Areas standard but be applicable to all contracts across the whole borough.	Procurement	Low	Low	Summer 2024	NRMM emissions compliance contract KPI.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Reducing emissions from the council fleet	RBG5.1	Our vehicle fleet will meet the following minimum emission standards: <ul style="list-style-type: none"> HGVs (>3.5T) - Euro VI LDVs (≤3.5T) - Euro 6 (Diesel) or Euro 4 (Petrol). 	Fleet Management / Procurement	High	Low	Summer 2025	100% of vehicles meet the relevant minimum emission standard.
	RBG5.2	We will continue to replace and upgrade our vehicle fleet with zero emission vehicles when reasonably feasible to achieve our goal of 100% zero emissions vehicles by 2030.	Fleet Management / Transport	High	Medium	Ongoing (2030)	Proportion of EVs in the council fleet. Electric Vehicle Strategy / Action Plan published. Number of electric vehicle charge points at council owned depots.
	RBG5.3	We will maintain a minimum Bronze level as a Fleet Operator Recognition Scheme (FORS) accredited operator.	Fleet Management	Low	No direct emissions / concentrations benefits	ongoing	Bronze level FORS accredited operator.
Localised solutions	RBG6.1	We will use the new Green Infrastructure Framework to inform our revised Local Plan and our future Green Infrastructure Strategy.	Planning, Regeneration, Parks and Open Spaces	Low	No direct emissions / concentrations benefits	Summer 2024	Local Plan published. Green Infrastructure Plan published.
	RBG6.2	We will commission a baseline tree canopy survey to better inform the value and benefits of the Royal Borough of Greenwich's trees and aid the development of our future Green Infrastructure Strategy.	Regeneration, Parks and Open Spaces	Medium	No direct emissions / concentrations benefits	December 2023	Publication of a baseline tree canopy survey.
	RBG6.3	We will plant 5,000 trees by the end of 2026 as part of the strategy to increase tree canopy within the borough.	Regeneration, Parks and Open Spaces	Medium	Low	December 2026	Number of trees planted annually.
	RBG6.4	We will prepare a Green Infrastructure Strategy and ensure Green Infrastructure supports both Air Quality Neutral and Air Quality Positive policy approaches to development in the borough and reduced exposure to air pollution.	Regeneration	Low	No direct emissions / concentrations benefits	Summer 2024	Publication of a Green Infrastructure Strategy.
	RBG6.5	We will combine 'Green Infrastructure' and the 'Healthy Streets' Approach in public high street design to create greener walking and cycling routes to encourage active travel options away from the borough's most polluted streets.	Regeneration, Parks and Open Spaces, Transport	High	No direct emissions / concentrations benefits	Ongoing	Green Infrastructure Strategy published. Streetscape Guidance and Asset Plan published.

Theme	Measure	Action	Responsibility	Cost	Expected emissions / concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Cleaner transport	RBG7.1	We will invest and work with TfL to implement the expansion and improvement of cycling infrastructure focussing particularly on the south and east of the borough and designated Opportunity Areas.	Transport	High	Medium	ongoing	Number of new cycling routes. Active Travel Plan published.
	RBG7.2	We will deliver the Active Travel Policy Framework Action Plan to support our local community in the transition to reduced reliance on cars and encourage walking or cycling.	Transport	High	No direct emissions / concentrations benefits	Summer 2023	Active Travel Plan published.
	RBG7.3	We will work with Transport for London to support and lobby for public transport improvements across the borough that foster connectivity, particularly north-south connections, and links to Thamesmead and Abbey Wood.	Transport	Low	No direct emissions / concentrations benefits	Ongoing	Number of new public transport routes and / or services.
	RBG7.4	We will continue to promote and support car club providers to encourage membership in Royal Greenwich and the increased use of electric vehicles.	Transport	Low	Low	Ongoing	Numbers of Car Club members. Number of electric cars.
	RBG7.5	We will deliver the Electric Vehicle Policy Framework Action Plan to implement a comprehensive charging infrastructure network across the borough.	Transport	High	No direct emissions / concentrations benefits	December 2023	Electric Vehicle Strategy / Action Plan published. Number of EV rapid and slow charging points installed.
	RBG7.6	We will continue to use and promote the Workplace Charging Scheme in the borough to encourage and expand the workplace EV Infrastructure.	Transport	Low	Low	Ongoing	Number of local businesses applications.
	RBG7.7	We will engage with local communities by using an evidence-based approach, we will identify areas in the borough that would most benefit from the implementation of through-traffic reduction schemes.	Transport	Medium	High	Ongoing	Number of Low Traffic Neighbourhoods.
	RBG7.8	We will support any through-traffic reduction scheme identified for potential implementation with real-time air quality monitoring.	Transport	Low	Low	Ongoing	Real-time monitoring installed.

Theme	Measure	Action	Responsibility	Cost	Expected emissions/ concentrations benefit	Timescale for Implementation	Outputs, Targets and KPIs
Cleaner transport	RBG7.9	We will review the lessons learnt from the permanent and temporary School Streets and explore their continuation and expansion to other schools in the borough.	Transport	Low to Medium	Low	Ongoing	Number of school streets.
	RBG7.10	We will support School Streets identified for potential implementation with real-time air quality monitoring.	Transport	Low	Low	Ongoing	Real-time monitoring installed.
	RBG7.11	We will expand the coverage of Controlled Parking Zones (CPZs) to the whole borough.	Transport	Medium	High	2025	Proportion of roads with controlled parking.
	RBG7.12	We will progress an emission-based charging structure to help drive the purchase of low emission vehicles in Royal Greenwich.	Transport	Low	Medium	Summer 2024	Number / proportion of electric vehicle permits issued.
	RBG7.13	We will investigate the benefits of introducing road user charging measures such as a workplace parking levy.	Transport	Low	Medium	December 2023	Business Case Development complete.

Appendix A: Consultation summary

Consultation summary report can be found on our website

[Air quality reports | Royal Borough of Greenwich \(royalgreenwich.gov.uk\)](https://www.royalgreenwich.gov.uk/air-quality-reports)

