

Richmond Council

Air Quality Action Plan

2024 - 2029



Executive summary

To protect you and your family’s health, the London Borough of Richmond upon Thames has set out a comprehensive Air Quality Action Plan for 2024-2029. Mindful of the medical evidence that air pollution is still the third most preventable cause of death locally despite substantial improvements in local air quality, we have set ourselves ambitious but achievable targets for air pollution levels based on the World Health Organization (WHO) Guidelines for air quality.

To ensure our plan delivers, we have used data and analysis of local air pollution to target key locations for improvement, including our town centres, and also groups of people who are most vulnerable to air pollution such as school children and those with pre-existing health conditions. Improvements to roads and footpaths will enhance safety and enjoyment for pedestrians and cyclists, accompanied by the installation of hundreds of new cycle parking spaces. We will work to ensure the upgrade of local buses to Zero Emission Vehicles delivers maximum benefits in our most polluted areas. There will be hundreds of new EV charging points to make it easier to operate electric cars and vans. We will also increase work to reduce emissions from engine idling, and many of our actions have direct climate benefits as well as for air quality.

Our Plan integrates efforts across the Council and partners. It draws on Climate Emergency plans, Public Health and our work with the NHS, and collaborations with schools and medical centers. The Plan incorporates our leisure strategy and works with TfL to improve local transport.

A key objective is to ensure that people who are the most vulnerable to air pollution are informed about how it could affect them, and how to protect themselves from it, for example by avoiding busy streets or smoky environments.

Our plan is orchestrated with action at National and London level to greatly reduce air pollution in our area by 2029. The outcome will be better health for you and your family.



London Borough of Richmond upon Thames

Draft Air Quality Action Plan 2024-2029

For further information contact the Special Projects Team on 020 8891 7729, or at

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Guide to this Air Quality Action Plan

This plan is about you and your family's health

Even though air quality has improved a lot in recent years, air pollution remains the third cause of preventable disease in our borough. It affects everyone but especially the young, the elderly, and those with heart or breathing problems and other illnesses. We are grateful to the thousands of residents who have already done their bit by choosing to walk, cycle or take public transport, or bought electric cars, heat pumps or solar panels. We need to do more to improve everyone's health. So our plan now is to reduce air pollution further by creating the best local environment in London.

Our overall goal

We are being realistic, we know we can't solve every problem. But we will follow best expert advice on how to reduce pollution further. To protect people's health we've set a target to get air pollution to low levels everywhere in the Borough by 2029¹. We'll use all the means we have to achieve this. For things we don't control, we'll lobby Government and others to try to make the changes needed.

Some people and places need special attention

As part of the Plan we will target the people that need the most help and the places that need the most improvement. Children and schools, people with medical conditions and older people will be addressed in the Plan. We'll work with teachers and the NHS so they can help these people too. Richmond Town and roads around Chalker's Corner get targeted actions, as do local shopping areas where people gather.

Getting around without polluting

A lot of air pollution in the Borough comes from buses, lorries, vans and cars. So we will try to get more of the buses passing through the most polluted areas switched to electric. We want more people to feel safe walking and cycling so more people will do so, so Richmond Town will be improved to make it a nicer, healthier place to spend time, in turn increasing footfall for local businesses. There will be better foot and cycle paths, more bicycle parking, and more charging for electric cars. We'll make similar improvements in Twickenham, Teddington, Barnes and East Sheen, and other areas where air pollution is a concern. We'll provide bicycle, e-bike and cargo bike rental schemes in many of these locations. And we'll expand our work to reduce engine idling using new council powers.

Protecting our school children

Children are especially vulnerable to air pollution, which can harm their lungs for life. So our plan includes a programme aimed at helping children in the borough. We'll improve air quality around schools by reducing traffic with School Streets, promoting active travel to and from schools, and promoting electric buses. Our Air Pollution Detectives workshops will teach primary school children about air pollution and how to protect themselves. We'll assess air quality inside schools and look for funding to install air filtration systems if necessary. We'll promote Play Streets, where side streets are closed to traffic, allowing children to play safely. This work will create a healthier environment for children to grow and thrive.

Working with the NHS and older and vulnerable people

Older people and people with certain medical conditions are also especially vulnerable to air pollution. We will work with children with asthma and their parents to teach them how to reduce their own exposure. Doctors and nurses treat many patients who are vulnerable to pollution, so we will train them to teach patients about air pollution and self-protection. Air pollution can be a problem indoors too, so we'll buy equipment to measure it indoors then target action. And we'll develop better maps of which places need the most improvement so we can adjust our plans as we go along.

Tackling Climate Change and Air Pollution Together

A lot of work to stop climate change getting worse also reduces air pollution. So our plan to be a Carbon Neutral Council by 2030 will help a lot. We will replace polluting gas boilers in our Council buildings with clean systems, and install better insulation. We'll do the same for buildings we lease out and we'll try to help less well-off people do the same in their homes.

Collaborating and communicating with residents

We want people to understand how to protect themselves from air pollution and avoid making more. A programme of information and events will explain this and more, working through community groups in particular and including updates about how well our plans are doing. And we'll encourage commercial kitchens and restaurants to reduce their pollution with a new rating and awards scheme.

Engaging with the community

Engaging our community is essential to improve air quality, so we'll implement a comprehensive communications programme. We'll collaborate with schools and the NHS on self-protection measures. We'll engage drivers, driving instructors and logistics companies about engine idling. We'll organise events promoting clean air and sustainability, addressing topics such as wood burning stoves. By providing information and making sustainable choices easier, we'll encourage people to make small changes to improve air quality. We'll keep residents informed and

involved throughout the process and we seek you and the communities help to work with us.

Getting active in our parks and green spaces

Getting active is really good for your health, and that can help protect you from air pollution. We're working to get more people more active in every way with our plan Richmond Moves for a Healthier Borough. Our parks have some of the cleanest air so we'll encourage their use. To protect this we plan to make events there sustainable, improve the management of open spaces, and to plant more trees. We'll try to provide power outlets and batteries for traders and ice cream vans so they don't need to use diesel generators. And our Healthy Waterways program will try to cut emissions from houseboats. These efforts aim to create a healthier, more active community that makes the best of the clear air in our green spaces.

Protecting air pollution in the future

The Council aims to eliminate air pollution long-term and has identified key issues to address. These include pressing for tighter national targets based on WHO guidelines, investigating environmentally friendly alternatives to cremation, and protecting people from ozone as it increases due to climate change. We continue to oppose the expansion of Heathrow Airport. We will monitor emerging evidence on future threats, such as whether the weight of EVs leads to increases in particulate pollution. And we will continue to monitor local air quality to the highest standards to make better decisions on where and how to protect it. In all of our actions we will use Council powers where possible or robustly challenge outside organisations to help.

This plan will improve your health and our neighbourhoods

This plan will help to reduce air pollution in our borough to safer levels by 2029. It will make our towns, parks and neighbourhoods nicer, healthier and more sustainable places to live and enjoy, for all of us.

¹ In technical terms that means on average below 20µg/m³ of NO₂ and below 10µg/m³ of PM_{2.5} each year.

Glossary

GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory, a major analysis of air quality emissions and concentrations in London conducted by the GLA every 4 or 5 years. The most recent 2019 study was updated in 2022.
NO₂, Nitrogen Dioxide	A toxic brown gas made by fire and combustion in engines, gas heating systems and gas cookers. In sunlight it also creates ozone pollution.
NO_x, Nitrogen Oxides	Nitrogen oxide gases that can turn into NO ₂ .
O₃, Ozone	A hazardous gas generated both naturally and by chemical reactions between sunlight and pollutants. It is also a greenhouse gas.
PM_{2.5}, Fine Particulate Matter	Very tiny dust particles only visible as a haze in the air. They come from fires and combustion, reactions in the air between other pollution, and friction. They are about a 50th the width of a human hair, smaller than 2.5 micrometres.
PM₁₀, Coarse Particulate Matter	Tiny dust particles caused by friction, such as on roads, brakes and tyres on vehicles, and blown off fields, demolition and construction sites. At 10 micrometres diameter, they are less than 10th the width of a hair.
Public Spaces Protection Orders (PSPOs).	PSPOs allow Councils to ban specific acts in a designated geographical area, such as littering, anti-social behaviour or anti-social driving.
WHO, the World Health Organisation	The United Nations agency responsible for improving health worldwide. It leads global efforts to find good evidence on how much air pollution affects health, how much might be safe, and what to do about it.
µg/m³ micrograms per cubic metre	The standard measure of air pollution, measuring incredibly tiny amounts. One microgram per cubic meter is one millionth of a gram in a box of air one meter on each side.

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OUR PLAN - WHY WE HAVE DESIGNED IT THIS WAY



Preface from the Administration

It's About You and Your Family's Health

This Council places the utmost importance on improving air quality for all our residents. Thanks to our combined efforts, air quality in the borough has already improved a lot. We recognise the considerable effort and investment our community has made to achieve these improvements. This includes your investments in over 5,100 electric and ultra-low emission vehicles since 2014, as well as the increasing walking, cycling and public transport use instead of cars. We are immensely grateful for these efforts and the improvements they have brought.

Despite these improvements, air pollution is still ranked as the third preventable cause of mortality in Richmond (Health & Wellbeing Partners, LB Richmond upon Thames, 2019) as well as contributing to many other diseases, from strokes and heart failure to asthma and cardio obstructive pulmonary disease. This is partly because UK Governments have repeatedly set unambitious targets for air pollution in the UK. Meanwhile our EU neighbours have adopted the WHO's ambitious and progressive approach to air pollution improvement. We have set the same ambitious objectives for the borough. And will take the same approach, tightening standards progressively as each target is achieved. This is because we recognise the very serious effects even small amounts of air pollution have on our health. Something we have not seen from recent Governments.

Setting ambitious targets is not enough; we need ambitious action. Our strategy has two pillars:

- Use data to identify the groups of people, places and services that need the most improvement or will benefit the most or need the most protection. For example the children or residents most vulnerable to air pollution, or the locations where people are most exposed.
- Take action that improves more than just air quality. Our work will make our streets nicer places to spend time. It will help people to manage health conditions, enjoy the outside more and have better homes to live in.

These actions are designed to benefit air quality, businesses, visitors and residents alike. They will transform our major town centres. Key streets will have better layouts. Footpaths will be improved as will cycle paths, bike storage for all types of bikes, bike hire schemes and EV charging points will be added. And they will enable you to make your street safer for children to play or run local events to enjoy safe streets and clean air. Local restaurants and shops will find it easier to run festivals that showcase their offerings.



Our focus is on you, your health, and the wellbeing of our community. This plan is not about implausible efforts to do the impossible. We have adopted a practical approach, identifying areas where the Council can lead by example or take direct actions to improve air quality. We have been guided by the science to improve the quality of life and life expectancy of everyone. And we will help residents to protect themselves, reduce their emissions and improve their quality of life. As climate change and air quality have common sources, they are most effectively tackled together. And so we have made our climate change, air quality and health improvement programmes work together.

We cannot do this alone. Many critical decisions rest with Central Government, including of policy, taxes and incentives, and with the Mayor of London. Almost all of our actions are dependent on funding from Central Government or the Greater London Authority, especially where new active travel and sustainable transport schemes are concerned.

Unfortunately, many decisions by recent Governments have been counterproductive.

Postponing car electrification to 2035 against the wishes of the UK car industry, using outdated air pollution objectives, and delaying the introduction of home energy-saving measures. Both the Government and the Mayor of London need to do more. Many of these measures also tackle climate change which also harms health. So we will continue to press them to do more, as well as actively challenge and press neighbouring boroughs, National Highways, the NHS and others to enhance their air quality efforts. We especially need more action from TfL to electrify the bus services passing through our town centres and to ensure buses are frequent, without long waits.

We will always be transparent and accountable about progress, both on our own actions and those of others. By the end of our plan our town centres and many streets will be transformed or significantly improved. Air quality will be improved and they'll be better, healthier places for residents to enjoy and businesses to flourish. We will have reduced air pollution across the borough and at key exposure sites. Your health and that of your family and other residents will be better.



Councillor Piers Allen
Chair of the Health and Wellbeing Board



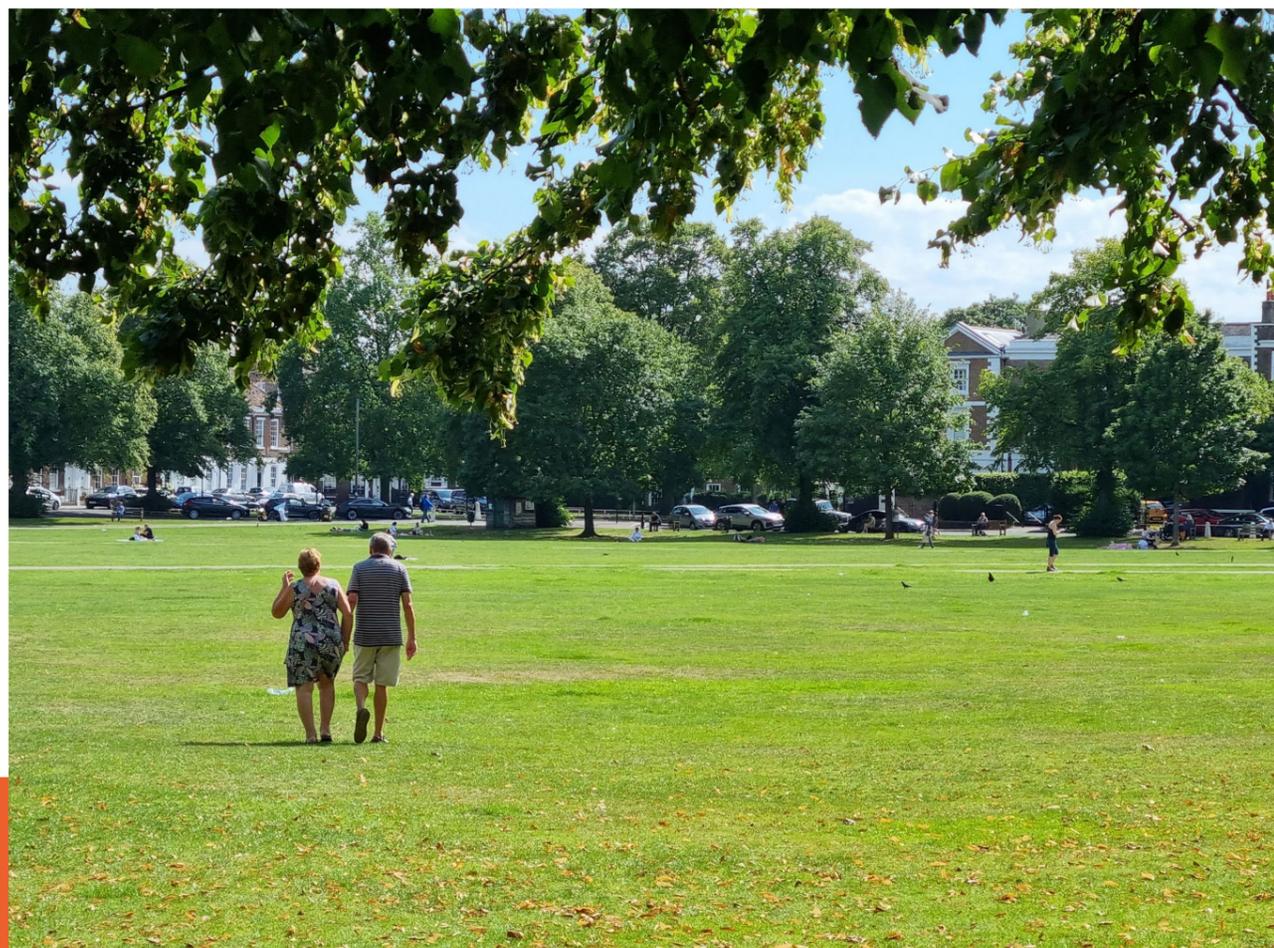
Councillor Alexander Ehmann
Chair of the Transport and Air Quality Services Committee



Councillor Julia Neden-Watts
Chair of the Environment, Sustainability, Culture and Sports Services Committee

Preface from the Director of Public Health

Clean air is crucial for our wellbeing and our environment. It has wellbeing benefits by protecting our health and helps to combat climate change by reducing harmful emissions. Both air pollution and climate change were identified as key environmental health hazards in our consultations as we developed our Joint Local Health and Wellbeing Strategy (2024–29) titled “18 Steps to Health and Wellbeing”. Steps 11 and 12 focus on climate change and air pollution. A key focus is on reducing air pollution and greenhouse gas emissions for the borough to Net Zero by 2043 or earlier, and greater engagement of vulnerable groups.



A Prevention Framework has been developed and embedded in the Health and Wellbeing Strategy. This highlights the need to address health inequalities and represents the Council’s commitment to embedding prevention in all policies and strategies at three interconnecting levels – people, community, and environment. This includes tackling poor air quality in the borough and health-promoting environments.

The evidence linking air pollution to health impacts is substantial. Epidemiological studies have shown that long-term exposure (over years) to air pollution reduces life expectancy, mainly due to cardiovascular and respiratory diseases and lung cancer. Short-term exposure (over hours or days) to elevated levels of air pollution can also cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and mortality.

It is crucial to raise awareness and take collective action to improve air quality and protect public health. Outdoor air pollution levels in some parts of our borough still exceeds the Government air quality objective levels well as WHO guidelines, and therefore action is still needed to tackle poor air quality. Air pollution comes from a range of sources including transport and domestic heating for example, however other pollutants originate outside the borough such as from Heathrow Airport or further afield.

Two pollutants are of particular concern for health, NO₂ and PM pollution. The former comes mainly from combustion in vehicles and domestic gas heating. NO₂ can cause inflammation of the airways, reduce lung function and contribute to asthma attacks. PM can be produced by a range of activities for example by wood burning, tyre and brake wear from vehicles, demolition, and other sources. Due to the small size of the particles (smaller than the width of a human hair) which form these pollutants, they can enter the bloodstream and can be transported around the body, lodging in the heart, brain, and other organs.

People more likely to be affected include older people, children, individuals with existing cardiovascular or respiratory disease, pregnant women, and people living in or near our town centres as well as those close to busy roads. Air pollution is not only an outdoor issue however, the health dangers of indoor air pollution are also of concern.

Pollutants from dust, cooking, cleaning products, air fresheners, cigarette smoke and vaping can all be harmful to health.

While progress has been made to meet UK guidelines, further work needs to be undertaken to meet WHO guidance levels. More work must be undertaken including targeting of deprived communities in pollution hotspot areas as well as settings considered vulnerable such as schools, children centres, health and community centres. There is a strong desire to see continued local action to help tackle and enable borough residents to lead healthier lives and this new Air Quality Action Plan will facilitate this.

Shannon Katiyo
Director of Public Health
London Borough of Richmond upon Thames



Introduction: The Present Situation and Goals for this Plan

Air quality in the borough has improved greatly in recent years. In 2016, the annual average Nitrogen Dioxide (NO₂) air pollution exceeded the UK Government’s air pollution target at 41 locations in the borough. By 2023, that was down to two locations (see Appendix A for details). Particulate Matter (PM) pollution has also greatly improved, as shown in Figure 1. This is a result of all our efforts, including the increases in walking, cycling and use of public transport, School Streets, and the investments in electric cars and vans by over 5,000 local residents and businesses, as well as wider policies like London’s ULEZ. Nonetheless air pollution remains the 3rd main cause of preventable cause of disease and death in the borough.

The Council wants to reduce this burden of disease on you and your family. We are setting goals we are confident can be achieved without excessive cost or inconvenience, working in cooperation with you, local businesses, schools and the NHS, and partners like TfL.

To that end, we have set a goal for air quality in the Borough that is more ambitious than the out-of-date UK targets set by recent Governments. This is based on the medical advice provided by the WHO. We are following their recommendation of gradually strengthening our objectives as previous targets are achieved.

Given that current annual NO₂ levels in the borough are mostly in the range of 20-30µg/m³ our goal is to

reduce this to below 20µg/m³ at all measurement sites in the borough by the end of this Plan (see Table 1). This is in addition to the Mayor of London’s policy of reducing PM_{2.5} annual averages in London to below 10µg/m³ everywhere in London. Both are more ambitious than the UK objectives.

We present our plan over several sections.

The section Priority Locations and Groups sets out the locations, groups of people and types of places that we want to specially prioritise. These are places where the general population get higher exposure to higher air pollution. And these are groups of people, such as school children or people with asthma, and types of places, such as schools or areas with relative deprivation, where taking action will have a disproportionate benefit, such as preventing damage for life to children’s health. This obviously also includes an ethical dimension – it is right to ensure we are protecting the most vulnerable.

The section Areas of Thematic Action describes the actions we will take in thematic terms, such as transport, walking and cycling, or tackling climate change and air quality together. These actions cut across the priorities, though some are specially targeted. But many will have wider general benefits to all residents, like bus electrification or energy efficiency. And we will continue our work, ongoing since the early 1990s, to ensure the Borough has one of the most effective air quality monitoring networks in the country, enabling us to make well informed decisions.

In the Appendices we set out in detail our rationale for these choices, the data analysis we have completed, the medical science of the WHO guidelines, and detail the KPIs we’ll use to measure ourselves on this plan.

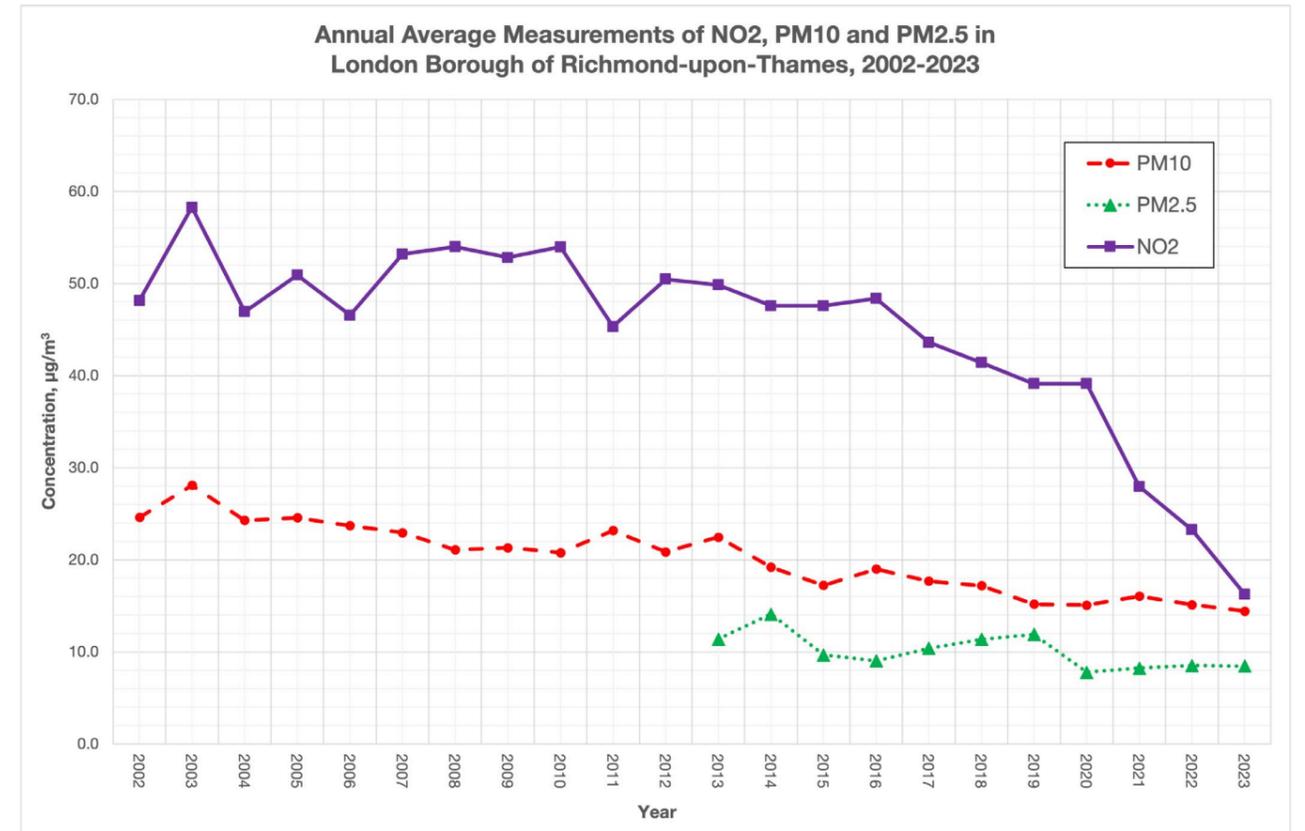


Figure 1. Annual average NO₂ (purple squares, average of 41 measurement sites in the Borough), PM₁₀ (red circles & dashed line, Richmond Castelnau monitoring station) since 2002, and PM_{2.5} (green triangles & dotted line, London Teddington monitoring station) since 2013. Data from Defra, Imperial College, and Richmond Council. Measurements are shown in µg/m³.

Table 1: WHO recommended air quality guideline levels and interim targets

Pollutant	Averaging time	Interim target				Level, µg/m ³
		1	2	3	4	
PM _{2.5}	Annual	35	25	<u>15</u>	<u>10</u>	5
NO ₂	Annual	<u>40</u>	<u>30</u>	<u>20</u>		10

Table 1. WHO guidelines for incremental reduction of NO₂ and PM_{2.5} targets until the guideline level is attained. Our targets for 2024-2029 are shown in green, bold, underlined. Range of current measurements in the borough are shown in orange italics.

PRIORITY LOCATIONS AND GROUPS



Our Town Centres and Key Target Areas

Our town centres are the living hearts of the borough's community: where we meet, eat, go out, shop and take transport. However, busy streets bring traffic and air pollution, exposing people to higher pollution levels, with Richmond Town, Upper Richmond Road West and Twickenham being Greater London Authority (GLA) Air Quality Focus Areas. Our objectives are twofold: improve air quality in these areas but also make them nicer places to spend time and enjoy local amenities. This in turn helps support local businesses.

A Vision for the Future of Richmond

Richmond town centre is known for its rich history, beautiful green spaces, and vibrant community. However, changing public habits, such as increased online shopping and remote working, pose challenges to its vibrancy. So the Council is developing a vision for its future. Our work with visitors to the area found that people love to use it for dining and socializing, as well as retail and leisure options. But many people were concerned about its air quality, as well the experience of walking and cycling there, the high levels of traffic and lack of activities for young people. Using these findings, we are working with specialist architects on a vision for the future, and a plan so that Richmond remains a lively and welcoming place for everyone.



Richmond Town

Richmond Town is one of our busiest places with a thriving daytime and nighttime economy. The Council will improve the town centre and create more space to enjoy its amenities. Addressing air quality emissions and exposure are central to this plan.

Active Travel

Improvements to road access, to footpaths and crossings such as at Friars Stile Road, new cycle paths and signage will make it easier to get around safely and enjoyably without a motor vehicle. We will also improve pedestrian access to Richmond along the river with significant improvements to the towpath.

Cycle parking hub for 700 bikes

A major new cycle parking hub at Richmond Station will allow 700 bikes to be parked securely, as well as cycle hire facilities for electric and cargo bikes.

EV Charging points

New EV charge points will also be installed to make it more convenient to drive electric vehicles.

Bus electrification

Bus emissions reductions are essential to improving Richmond town centre's air quality. TfL has already upgraded the 33, 65, 371, R70 to a ZEV fleet. But this still leaves 12 bus routes using polluting diesel engines. Ideally all our buses would be ZEVs but we recognise the challenges TfL faces to deliver this by 2029. And we will support TfL in its efforts to lobby Government for funding to enable this. So our goal is that by 2029 at least routes H22, 190, 337, 419, 490,

493, R68 are upgraded to ZEVs. Prioritising these buses will also reduce air pollution in Twickenham, East Sheen, Mortlake and other areas.

Reducing through-traffic in Richmond Town Centre

Through-traffic in Richmond town centre remains at high levels and is a significant contributor to air pollution there. We will investigate options to reduce it, in the context of both the Richmond Vision work and in the longer term the Third Local Implementation Plan for transport.

Engine idling emissions

Richmond Town is a major focus of our work to reduce vehicle idling emissions, especially around the stations and on the narrow streets of the town. This will be facilitated using new powers through Public Spaces Protection Orders (PSPOs).

Air pollution monitoring

We will monitor progress in Richmond Town with a new air pollution monitoring station. This will also help us understand the air pollution patterns there. And publishing the data will show transparently that our actions are working.

Continued overleaf...

East Sheen, Barnes, Mortlake, and areas around Chalker's Corner

With major roads running next to homes, shops and amenities, road traffic related pollution is the key target for action in these areas. The area also includes some pockets of deprivation. To better tackle the air quality issues here, we commissioned analysis by engineering consultants. This found that buses are 1-in-50 of local vehicles but emit 1/10th of NO_x emissions in flowing traffic, and up to 1/3rd in congestion. So eliminating bus emissions and congestion is an effective way to reduce air pollution here.

Reducing road congestion

Our long term goal is to reduce total kilometres driven in and through the borough. Until this is achieved, stop-start driving causes especially high emissions from diesel cars and vans, which already cause around half of local NO_x emissions. To reduce these emission effects, our goal is to reduce congestion and stop-start driving on Upper Richmond Road West and Clifford Avenue. Working with TfL we will improve the local junction layouts and traffic light

timings, relocate bus stops and crossings, reallocate parking and work with local businesses to reduce peak-hour deliveries. We will also work with drivers to reduce engine idling.

EV chargers and Smart Green Logistics

We will install new EV charging points for local residents and businesses, and ask local businesses what new infrastructure they need. This will seek funding to extend our Smarter Green Logistics project, recently focussed on Sheen Lane and the Quadrant, Richmond. This provides better management of delivery parking, additional parcel lockers, and Virtual Loading Bays, digital parking spots for delivery vehicles.

Improvements to walking and cycling facilities

Sheen Road is a key corridor for improvement of both our local cycle network and London's wider network, both to promote active travel and to increase cyclist and pedestrian safety. We are working to obtain funding for cycle lane upgrades and new road safety measures as part of our Local Improvement Plan.



Twickenham Town Centre and St Margaret's

Twickenham is our next busiest town centre and has higher air pollution than we want. Improvements completed in East Twickenham approaching Richmond Bridge include wider footways, enhanced bus waiting areas and new tree planting, all designed to encourage active travel. We are looking to improve cycling and walking further in Twickenham with new and enhanced pedestrian crossings proposed on London Road and through the introduction of cycle friendly traffic calming on Cole Park Road. This will link to pedestrian and cycle improvements being undertaken around the A316/London Road junction by TfL and create a much improved cycle link on strategic Cycleway 40.

New facilities for walking, cycling, cargo bikes and EV charging

Street improvements will make it easier to walk and cycle. This will include new walking and cycle infrastructure around Cross Deep, Heathcote Road, the A305, and London road. New cycle hire facilities for electric and cargo bikes will be installed. And there will be additional EV chargers, including fast chargers, to facilitate the purchase of new EVs by local residents and business.

Bus electrification

While three bus routes serving Twickenham are already EVs, there is a good case to electrify both the H22 and R70 as well as these also serve Richmond Town. To this end we aim to have the H22 and R70 upgraded by the end of this action plan, so at least five of the seven routes are electric.

Whitton, Teddington, and The Hamptons

While air quality in these areas is better than that in other hotspots, we plan measures in Whitton, Teddington and the Hamptons, especially given the pockets of deprivation in some areas and their proximity to busy roads. We are adding new crossings, such as at Wellington Road and Shacklegate Lane. We are seeking funding for new walking and cycle infrastructure, extending our current projects linking Turing House School with Twickenham, through to the Hanworth Road. And we will work to ensure that TfL buses are frequent, without long waits for services or reductions in service quality.

Our schools air quality programme will be extended to secondary schools most vulnerable to air pollution, where behavioural interventions can help students reduce their risks. Our work with TfL to deliver bus route electrification will also have benefits in these areas, and we will lobby TfL to restore local bus services to their full schedules.

EV chargers

We will install new EV charging points for local residents and businesses and ask local businesses what new infrastructure they need.

Active Travel

We are seeking funding for schemes to make walking and cycling safer on the A314 at Hanworth Road and will seek further opportunities to improve this.

Cycle hire and electric cargo bike hire

There will also be new cycle hire facilities for electric and cargo bikes.

Schools and Children

Children are very vulnerable to air pollution. It harms them both immediately and for their whole lives by stunting their lung development. This is why we have a specific programme targeted at helping the children of the borough, including extending our very successful Air Pollution Detectives programme.

New and Existing School Streets

Children’s exposure to air pollution can occur at home and inside schools and nurseries, but also on the way to and from them. Our programme of School Streets has been designed to tackle this and is now in its fourth phase with 18 streets setup as school streets and potential for more to come. Eliminating traffic closest to schools and nurseries at arrival and leaving time reduces the pollution levels where and when children congregate. School Streets also improve road safety. We will create new School Streets as required and improve the existing ones over years to come with better paving and street design. New street painting and furniture will highlight school street entrances. We will continue to press TfL to prioritise bus routes near schools for electrification, to reduce emissions in the neighbourhoods around School Streets.

Air Pollution Detectives

Our Air Pollution Detectives workshops in primary schools help young people understand and protect themselves from air pollution. The events raise awareness and show young people what they can do to reduce both their exposure and their contributions to air pollution.



School Travel Planning

We will continue to collaborate closely with local schools to develop bespoke travel plans based on TfL’s Travel for Life programme. These plans outline how schools intend to increase walking, cycling and public transport use for journeys to and from school. They are developed through partnerships involving schools, the Council, TfL and the community, based on consultation with teachers, parents, pupils, governors and local residents. This approach aims to foster sustainable travel habits amongst school-aged children and their families, including reducing transport air pollution.

Air Quality Assessments and Indoor Air Filters

We want the air inside our schools to be cleaner, so we’ll continue to offer schools air quality assessments and seek funding to install mitigation in our schools funded by the Mayor of London’s Schools Air Filter programme. These will also be used to prioritise the Air Pollution Detectives workshops.

Measuring air pollution near schools

We want the air near and in our schools to be as clean as possible, and essential to that is knowing how good or bad the air quality is in streets near schools. To this end we have carried out one full year of NO₂, PM₁₀ and PM_{2.5} monitoring outside nursery, infant, junior and senior schools and will investigate funding options to extend this work.

Play Streets

As well as getting to and from school, we want our children to be safer from air pollution while playing outside. To give children safer conditions for play, we’ll continue to promote Play Streets on specific days, closing side streets to traffic so children can play safely. While these will be promoted for campaigns, especially for Clean Air Day, we want these to become programmes led by you, the residents and businesses of the borough, so you choose when and where Play Streets or similar temporary street closures best take place. To this end we’ll guide you through the process to apply for a Play Street or Street Closure, so you can organise them more easily.

Reducing climate change related pollution

The Council is also developing its 5-year Climate Emergency Strategy, which will include measures to reduce both climate change pollutants and toxic air pollutant emissions from schools.

Health and Our Vulnerable People

As well as children, older people and people with existing health conditions are more vulnerable to air pollution. We will implement a specific programme of actions to help reduce the effects on them.

NHS Collaborations to train medical professionals and patients

The NHS in the South West London Integrated Care System helps thousands of people with illness every day. We'll work with the NHS South West London cluster to develop an education programme on the sources and health impacts of outdoor and indoor air for medical professionals and their patients. This will help them encourage preventative behaviour changes and the use of preventative medication by patients and older people. We will gather clinicians' insights on effective promotion of lifestyle changes that improve health outcomes and reduce exposure. Despite the challenges of engaging busy healthcare providers, we believe this collaboration is crucial for community wellbeing. Our ultimate goal is to develop effective strategies for cleaner air and healthier living, especially for the elderly population.

Asthma Awareness Project

We will expand our Asthma Awareness project (see box). This helps asthma sufferers to understand and reduce their exposure to air pollution.

Asthma Awareness Project

This pilot project aims to improve asthma management in children by tracking their personal exposure to air pollution. Participants carry mobile devices to measure air quality as they move between home, school, and other environments. This creates detailed air quality maps specific to each child's daily routine. An asthma nurse works closely with families, providing guidance on general asthma management and strategies to mitigate environmental impacts. By combining the air quality data with expert medical support, it empowers children and parents with personalised insights, enabling them to make informed decisions about managing asthma in various settings and potentially improving their quality of life.

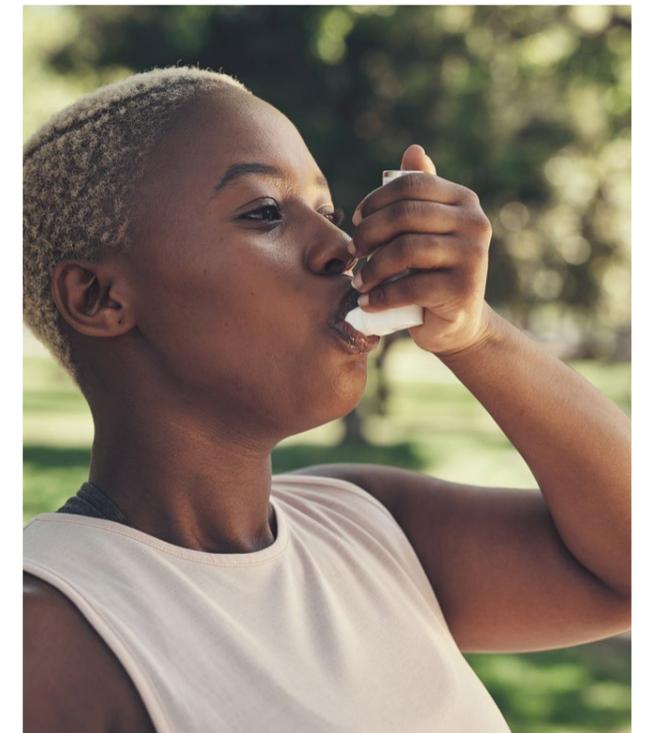


Better mapping of vulnerabilities

We will work with health professionals, Public Health and climate colleagues to identify and map air pollution vulnerabilities in the borough as part of the wider climate risk mapping done by the Council. This will be used to target further interventions.

Indoor Air Quality

We will also work to improve indoor air quality targeting vulnerable people and settings. This means children's centres, primary schools, day centres, health centres and care homes near pollution hotspot areas. To measure indoor air quality we will invest in new portable indoor air quality monitors. This will allow us to provide mitigation and health advice in line with National Institute for Health and Care Excellence Guidance and the WHO guidelines on indoor air quality.



AREAS OF THEMATIC ACTION



Taking Climate Action and Air Quality Action Together

Climate change is one of the most serious problems facing humanity, with its effects worsening every week, month, and year. It is essential to tackle our greenhouse gas emissions in the borough to mitigate climate impacts today and ensure a liveable world for future generations. Most actions on climate change also help reduce air pollution. The Council has developed an extensive action plan to deliver such improvements, as well as developing a new Climate Emergency Strategy. This is due for completion in 2025 and will cover 2025-2030.

Carbon Neutral Council by 2030

The Council intends to be Carbon Neutral by 2030. By 2024, Richmond had reduced its emissions by 3/5ths since 2017 and was one of 119 towns and cities in the world on the Carbon Disclosure Project 'A' list. This was delivered through initiatives like Warm Home Packs, revisions to the Local Plan, BlueScapes projects and the Air Quality Action Plan. To build on this success and achieve our 2030 goals, we are developing a Climate Emergency Strategy for 2025-2030. This will also address the ecological challenges we are facing as a borough, accelerate our pathway towards becoming a Net Zero borough by 2043, and build our adaptation and resilience towards the effects of climate change.

Reducing local combustion by improving building energy efficiency, installing solar hot water panels and replacing gas boilers with heat pumps and increasing proportions of active travel or electric vehicles all directly benefit local air quality. Reducing grid electricity consumption lowers the demand for coal, gas, and biomass power stations, which contribute to air pollution that can be blown into our area on the wind.



Reducing emissions from our buildings

Reducing emissions from Council buildings will help make the Council Carbon Neutral by 2030. This will be delivered by retrofitting buildings for energy efficiency and replacing heating systems with low emission alternatives, including in our leisure facilities and buildings we lease. And we will seek additional funding to support the decarbonisation of buildings and our swimming pools.

Replacing our fleet with EVs

To eliminate emissions from our vehicle fleet, our decarbonisation plan will replace end-of-life vehicles with EVs, enabled by charging infrastructure and defined replacement schedules.

Training and more sustainable transport options for Council staff

We will strengthen our support for sustainable travel for staff, including with the cycle-to-work scheme, season ticket loans, and EV leasing schemes. We will also provide carbon literacy training for all staff and councillors.

Energy efficiency for low income households

We are implementing a series of energy efficiency schemes to support low-income households and those in homes with poor energy efficiency. This includes securing more funding from the Government and Green Finance sources and providing advice to residents on improving energy efficiency and reducing bills. The new Local Plan, set for adoption in winter 2024/25, will include improved planning requirements on climate change.

Retrofit Skills Training for Energy Efficiency and Carbon Reduction

We are increasing the provision of retrofit skills and training to ensure we have skilled personnel for installing energy efficiency and carbon reduction systems.

Sustainability Network to Support Local Businesses

A new sustainability network comprising the Council and local businesses will run events and training on the zero emissions transition. Events like the Richmond Sustainability Forum facilitates knowledge sharing, networking, and increased local action among public sector partners, businesses, and community groups. Along with our Making Businesses Greener service, which identifies tangible cost savings from energy efficiency, these will support local businesses in improving their energy efficiency and emissions.



Active Travel and Transport

In years to come, we expect other sources of air pollution to increase in importance, but for now vehicles remain a major source of pollution in Richmond, with areas along roads experiencing some of the highest air pollution levels. To address this we will both promote active travel and the transition of local vehicle fleets to EVs, as well as a long term plan to reduce vehicle-kilometres travelled. In 2019 we set out our road user hierarchy that prioritises active travel which continues to guide our policy, plans and implementation. This helps put into practice the Healthy Streets principles developed for London but increasingly used Worldwide, and which underpin our thinking on all new street design. And we are developing a new transport strategy that will include air quality as a key consideration. This recognises that current levels of vehicle-kilometres driven are unsustainable so we have targeted a 5-10% reduction in vehicle-km by 2041.

Bus route electrification

An important measure will be our work to promote bus route electrification by Transport for London (TfL). They have already electrified the buses on the 33, 65, 111, 265, 281, 290, 371 and R70 routes. But we think TfL can do better than this in terms of health and air pollution outcomes through more careful planning. Our goal is to maximise the benefits to our air pollution hotspots by prioritising the upgrade of bus routes that service multiple town centres and that can be upgraded quickly, rather than TfL's current approach.

Our bus upgrade prioritisation plan targets reductions in Richmond and Twickenham town centres and Upper Richmond Road West. It includes upgrading the 190, H22, 337, 419, 493, 533 and R68 buses by 2029. We recognise the limitations placed on TfL by their existing contractual obligations with bus companies but will press to replace fleets early where needed. We also recognise TfL's financial pressures and the challenges they face in delivering electrification without more Government financial support. So we will support them in their efforts to obtain additional funding for electric buses.

Buses must also provide a good quality and frequent service. We will work with TfL and operators to ensure this remains the case.



Better and more facilities for active travel

Walking and cycling are crucial for improving health and reducing air pollution from motor vehicles. We will roll out additional safety and comfort improvements to footpaths and cycle paths throughout the borough, particularly in Richmond Town and Twickenham. This year alone we will install at least 33 new bike hangars across the borough and create a cycle parking hub with 700 spaces in Richmond Town (see box), as well as 500 new short term cycle stands across the borough over coming years. We will continue our Good Move scheme offering bike trials, car club membership and Oyster cards to residents who are scrapping a non ULEZ compliant vehicle. And we will continue our popular cycle training scheme, which help cyclists develop confidence in cycle use and road safety.

Bicycle Superhub at Richmond Station

A new multi-storey bicycle superhub will be built at Richmond Station, offering secure parking for up to 700 bicycles. This will provide a safe place for cyclists to securely store their bikes at the station, as well as offering facilities for bike maintenance. By encouraging more residents to choose active travel and public transport, it will reduce car dependency, alleviate congestion, and improve local air quality.

E-bike, e-cargo bike and delivery management schemes

To increase bicycle accessibility we'll offer affordable rentals of standard, electric, and cargo bikes. E-bikes will assist those who need help pedalling, while cargo bikes will enable quick, cheap transport of large items. And we will test the feasibility of an e-cargo bike waste collection scheme for businesses.

Delivery lockers and consolidation

To mitigate pollution from the growing number of home deliveries, we will work on setting up new delivery lockers or consolidation hubs and consult residents on expanding the use of collection points and parcel lockers, especially at transport hubs and residential areas.

EV charging points and power supply for traders

In addition to the 525 new EV chargers recently installed, we will install at least 200 more this year and more in years to come. This includes trialling EV-only parking bays and on-street cable gullies. And we will bid for more funding to expand the availability of chargers, especially fast chargers. We will collaborate with UK Power Networks to install power supplies for traders, such as those completed at Hampton Court Bridge, and major events and support more charging off-street, delivering it ourselves where possible. We will ensure our new car club operator uses only the cleanest vehicles and makes plenty of EVs available, and keep under review schemes like Co-Charger that encourage residents to share their chargers.

Action on engine idling

Our regular idling action events, which are supported by residents and councillors, will continue to run, especially at our target hotspot locations. Our Parking Officers continue to do excellent work intervening and offering advice to motorists, but this is not enough, we will therefore aim to reinforce idling action at these locations by new powers through Public Service Protection Orders.



Planning and Development

Emissions from gas heating in buildings, as well as other sources like wood fires, make up a significant proportion of local air pollution. To reduce these we will work with developers through our new Local Plan and other measures to eliminate sources of air pollution.

New Local Plan and Development Control

Our new Local Plan is central to delivering long term reductions in air pollution and climate emissions, by requiring the elimination of emissions from new developments, or as buildings are replaced, refurbished or upgraded. Over time insulation and replacement of gas heating with heat pumps will eliminate heating emissions. In listed or conserved buildings this can be a challenge so we will work on tailored approaches to financing and retrofitting them.

Development Control

How and where we prioritise construction and access to developments helps us to reduce dependence on cars and helps people get around on foot or by bike. It allows us to seek mitigation when new homes are built near sources of air pollution like busy roads. Enabling the installation of delivery lockers at transport hub locations and near housing estates will help to reduce the emissions impacts of online shopping and make them safer and more convenient to receive. And developers will be required to meet the local standards we have set for NO₂ of 20µg/m³ as well as Mayor of London's 10µg/m³ PM_{2.5} limit. We will update the AQ Supplementary Planning Document to this effect at the next opportunity.

Study whether emissions based schemes are needed

We will carefully consider the environmental impact, public acceptance, and economic considerations associated with Controlled Parking Zone variants based on emissions schemes, as these have been shown to encourage the adoption of cleaner vehicles. To date we do not believe our goals in the borough require them but it is sensible to at least examine their possible benefits and downsides.



Reducing emissions during construction

Construction site machinery, or Non-Road Mobile Machinery, are a substantial source of air pollution. Our air quality team are acknowledged leaders in London and the UK on reducing emissions from this machinery. Working with the Greater London Authority, we will implement new requirements that machinery are compliant with Stage IV emissions regulations by 2025 and Stage V by 2050. And with £200,000 of new funding, work has begun to extend this to similar polluting equipment in services like roadworks, waste sites and public events. As emissions standards become tighter we will help construction switch to clean site power such as electricity and hydrogen. With the right energy and fuel sources, this can complement decarbonisation efforts as well as reducing air pollution.

Community Engagement and Education: Empowering Residents to Improve Air Quality

Engaging and informing our community is crucial to the success of our air quality initiatives. By raising awareness, promoting sustainable practices, and encouraging behaviour change, we can work together to create a healthier environment for all. To achieve this, we plan a comprehensive programme of communications about air quality in the borough, including the following key projects to involve and empower our residents.

Working with the NHS and schools

As described earlier, we will work with schools and the NHS to provide training and events that cascade understanding of air quality sources and how to minimise exposure. This aims to support the people in our communities most vulnerable to air pollution.

Rating and Award Scheme for Commercial Kitchens

We will establish a rating and award scheme for restaurants and commercial kitchens to highlight their progress in reducing emissions of NO₂, PM_{2.5} and CO₂ from their operations.



Clean Air and Sustainability Events

We will hold air quality, active travel and information events on Clean Air Day, Car Free Day and the Richmond Ideas and Arts Festival. These provide opportunities to reach out to the community, share information about air quality, and inspire people to act. Practical support like free bike maintenance is also included. We will use these to highlight the importance of clean air, showcase our work to address pollution, and encourage residents to adopt environmentally friendly practices in their daily lives. These events are an excellent opportunity to organize a Summer Play Street, allowing children to play safely in the street.

Tackling Vehicle Emissions from Engine Idling

Idling is unnecessary and the traditional behaviour change approaches do not seem to be working. The legislation is weak and desperately needs to be reviewed so we will lobby government for a better system. We will continue our regular monthly events across the borough at idling hotspots where people can be exposed. This includes railway level crossings, outside schools, at railway and bus stations, and supermarkets, and wherever possible involving community volunteers. We will take this further as part of the Pan-London Idling project focused on:

- lobbying for improved legislation and LA powers to enforce;
- best practice sharing;
- campaigns to engage drivers; and
- engagement with logistics companies and driving instructors as part of pan-London work with other Councils.

We will introduce a new last-resort fine for engine-idling using newly introduced powers through Public Spaces Protection Orders. This will be used to reinforce the positive fuel and emissions saving messages from our work to change behaviours.

Wood Burning stoves

Wood-burning stoves and fire pits are very high PM_{2.5} air pollution emitters. Collaborating with other Councils we will educate residents on the impact of wood burning on air quality and provide guidance on their correct use and maintenance. By raising awareness and promoting best practices, we aim to reduce the negative effects of wood-burning stoves on individuals and our local air quality.

Commercial Cooking

Emissions of PM_{2.5} from commercial kitchens and wood-fired pizza ovens are a growing concern in London. They contribute substantially to PM_{2.5} levels. Solutions to this issue are not well understood yet. We will coordinate with other boroughs to identify effective measures to tackle this. Meanwhile, we will ensure restaurants understand their duties and best practices. This will protect their customers and staff from high indoor air pollution and minimize emissions from their air extraction units.

Application of Nudge Methods

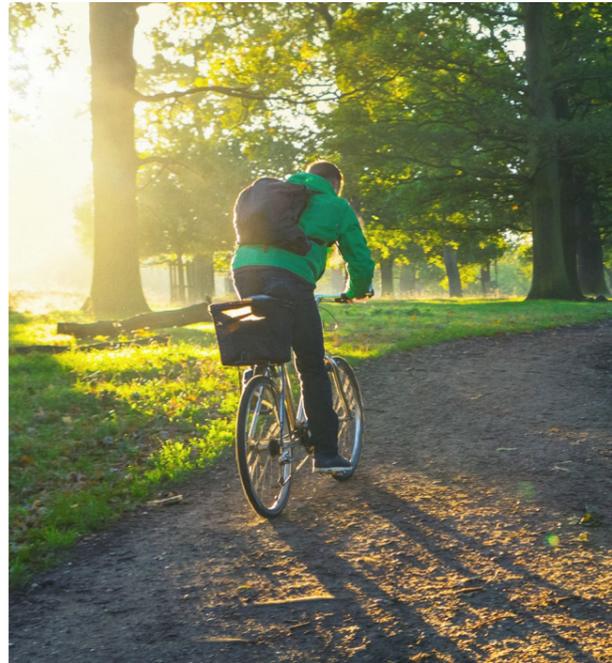
To encourage positive behaviour change, we will investigate the use of nudge methods – subtle and indirect approaches that influence people’s choices and actions. These methods may include providing information, changing the physical environment, or offering incentives to promote environmentally friendly behaviours. By carefully designing and implementing these nudges, we can guide our community towards more sustainable practices without resorting to coercive measures.

Our Commitment to Transparency

Throughout all these initiatives, we will maintain open communication channels with our residents. We will regularly update the community on our progress, seek their input and ideas, and provide opportunities for them to get involved. By fostering a sense of ownership and collective responsibility, we can create a strong foundation for long-term success in improving air quality.

Our Green Spaces and Amenities

Our green spaces and amenities are central to our enjoyment of life, activities, sports and overall health. They are also some of the lowest air pollution areas in the borough. We have plans to help you enjoy them more and to maintain the best air quality in these areas, including our strategy to get more people more active Richmond Moves for a Healthier Borough.



Richmond Moves for a Healthier Borough

Richmond Moves for a Healthier Borough is the Council's strategy to help people be more active. It will encourage people to make positive choices for more activity, informed by air pollution information where appropriate, always promoting the benefits of an active lifestyle. It will increase opportunities for people to be active above and beyond the provision of improved active travel infrastructure. And it makes sure local services that support active communities are accessible. This work strongly complements air quality improvement measures, as physical activity helps improve overall health, reducing vulnerability to air pollution.



Improving Access to our Parks, Events and Amenities

The borough is gifted with 135 beautiful parks, greens, and open spaces. The lowest air pollution levels are consistently measured in our green spaces, making them perfect for activity and important clean air environments to protect. As we depend on transport to reach them, we will continue to prioritise access to these locations on foot, by bike or by public transport. Event day restrictions will also stay in place to minimise both local traffic and air pollution effects in the local areas.

Sustainable Park Amenities and Events

Amenities like ice-cream vans and cooking stalls at regular or one-off events also emit air pollution. We will reduce this by providing electrical power supply or loan battery packs at locations and stands that are actively in use. This will eliminate the need for generators and help events become fully sustainable.

Healthy Waterways

Our Healthy Waterways outreach and education programme works with canal and river dwellers to help them minimise air pollution. We will work on ways to establish baseline data for the number and extent of the problem among our river dwellers. We will then seek funding to help them reduce emissions and eliminate the need for combustion sources, such as providing shore supply from electric power pillars.

Sustainable Management of Open Spaces

The Council will maintain our open spaces as centres of excellence for sustainable management, reducing the environmental impact of our operations. For air quality, this means increasing use of alternatives to fossil fuel powered equipment and vehicles. We will maximise composting of green waste to minimise transport emissions from removing waste.

Trees

The Borough will develop a new Tree Planting Strategy, taking account of the benefits for air quality and climate. Trees and hedges are well understood to provide effective screening from air pollution sources in the right conditions, as well as absorbing the climate gases carbon dioxide and ozone, providing shelter in hot weather and absorbing some NO_x and PM.

Working with our air quality team, the strategy will take account of opportunities to use trees and hedges to improve dispersal and screening of air pollutants. Key target locations, including major TfL routes, and locations with limited vegetation will be a special focus, pressuring partners like TfL where needed. We will continue to examine emerging evidence on the effectiveness of particular species at pollutant absorption. A new Tree Warden Scheme will help the community support and nurture trees in their local area, not least in helping to protect local trees during hot weather.

Protecting our Biodiversity from Air Pollution

We have many special and important sites in the borough, including Sites of Special Scientific Interest and a National Nature Reserve. This includes National Priority Habitats and Species as well as those found with the Richmond Biodiversity Action Plan. These habitats and species can be harmed by air pollution, so will receive attention in the Tree Planting Strategy for how new plantings can help protect them by absorbing contaminants and providing important wildlife corridors. Maps of these habitats will be included in our future work on detailed climate and air quality risk mapping, to develop a more accurate and detailed risk estimate for future work.

The Future of Air Pollution in Richmond upon Thames

The goal of reducing the adverse health effects of air pollution has repeatedly been driven by new and emerging evidence and events. This ranges from new scientific understanding of the effects of PM_{2.5} on cardiovascular health, low birth weight and dementia, to measurements showing how much cooking can affect air pollution in London, to events such as in the VW “Dieselgate” emissions scandal. As a leader in UK air quality, the Council understands the importance of looking ahead to eliminate air pollution long-term. Our monitoring of emerging issues has identified the following issues and actions we will take, in particular pushing for a national approach to adopting the WHO guidelines.

Pressing for tighter national targets based on WHO guidelines

By adopting the WHO interim targets on air quality, the country can reduce the amount of disease caused by air pollution, saving lives and costs to the NHS. Getting air pollution even lower towards the WHO final targets will not be trivial, even if we approach or achieve these levels at times in places like our borough. We will press the Government and the Greater London Authority to adopt our progressive approach. This will reduce disease across the country and help share the effort needed to achieve this important health goal.



Crematoria

Losing our loved ones is often one of the most difficult moments in our lives. While we carefully manage air pollution from our crematoria, residents increasingly seek more environmentally friendly options, like water-based disposal and other nature friendly options. We are studying how best to implement methods in the borough.

Monitoring for new pollutants and science, such as EV particulates

Ongoing scientific research continues to reveal new air pollution issues, which we will monitor and take action to mitigate if required. One such issue is whether the weight of EVs could lead to increases in PM concentrations, due to the increased frictional wear on brakes and wear and damage to road surfaces from heavier vehicles. Experimental and modelling studies currently suggest that overall PM levels will go down in cities despite the switch to EVs, while others suggest battery weights in EVs are expected to decline as the technology improves. This remains an important area of research and we will continue to monitor it, not least by installing new monitoring equipment for outdoor PM_{2.5} in Richmond Town.

Other important topics are nanoparticles such as plastic nano-fibres, and Polycyclic Aromatic Hydrocarbons. These are increasingly suspected to be a cause of cancer in our urban environments. We will monitor this emerging evidence in case there's a need for action. And we will continue our work, ongoing since the early 1990s, to ensure the borough has an effective and comprehensive air quality monitoring network. This will comprise both the existing high quality, regulatory standard measurement stations, including the new regulatory standard measurement station for PM_{2.5} at Richmond Town, our extensive diffusion tube network, including special projects such as at schools, and experimental real time sensors such as the Breathe London network, and portable indoor air pollutant measurement equipment. We are committed to sharing all our findings and research with residents.

Protecting people from ozone and its links with climate change

Ozone is a naturally occurring gas formed by sunlight and chemical reactions with other air gases and pollutants. Its presence high in the atmosphere protects us from the Sun's ultraviolet radiation, skin cancer and safeguards nature. But when ground-level ozone forms it can cause asthma attacks and respiratory issues, especially in vulnerable individuals. It also harms plants and harms animals.

To help reduce hazards from ozone, we will work with clinicians and people who have asthma so they understand the risks associated with ozone in hot weather. They will be informed about services like airTEXT and Met Office forecasts of high ozone. They will learn how to use these to ensure they have medication ready and what are the safest times for outdoor activities.

Heathrow Third Runway

Richmond Council opposes the expansion of Heathrow Airport with a third runway. Not only would this increase air pollution and carbon emissions, it would disrupt local life with more aircraft traffic at low altitudes over the borough. This is not only a nuisance but harms people's quality of sleep and affects their health. We will continue to work with other boroughs to resist these plans and to take account of the wider issues in play, such as airspace modernisation, so we prevent adverse impacts on our residents.

Hammersmith Bridge

Hammersmith Bridge Road is a GLA Air Quality Focus area, but while the bridge remains closed air quality emissions remain lower. The full reopening of Hammersmith Bridge would improve cross-river car and bus transport but would also significantly increase air pollution in some localities. Plans are still in development by London Borough of Hammersmith & Fulham to implement their programmes to stabilise, strengthen and restore the bridge. We will monitor air pollution levels in the area to establish the new local baselines to prepare for any new risks, especially considering our new local air pollution targets.

APPENDICES



Appendix A.

Understanding Air Quality In the Borough

Air quality has improved a lot in the borough over the last 20 years. A good example of this is the fall in annual average NO₂ shown in the graph at many locations in the borough Figure A1. The progress achieved, and the resulting health benefits, have been the result of cooperative action. This included contributions by local residents, the Council, London-wide policies like the ULEZ and work at national level. Here in Richmond, thousands of residents and businesses have bought electric and other cleaner vehicles, increased walking and cycling or their use of public transport.

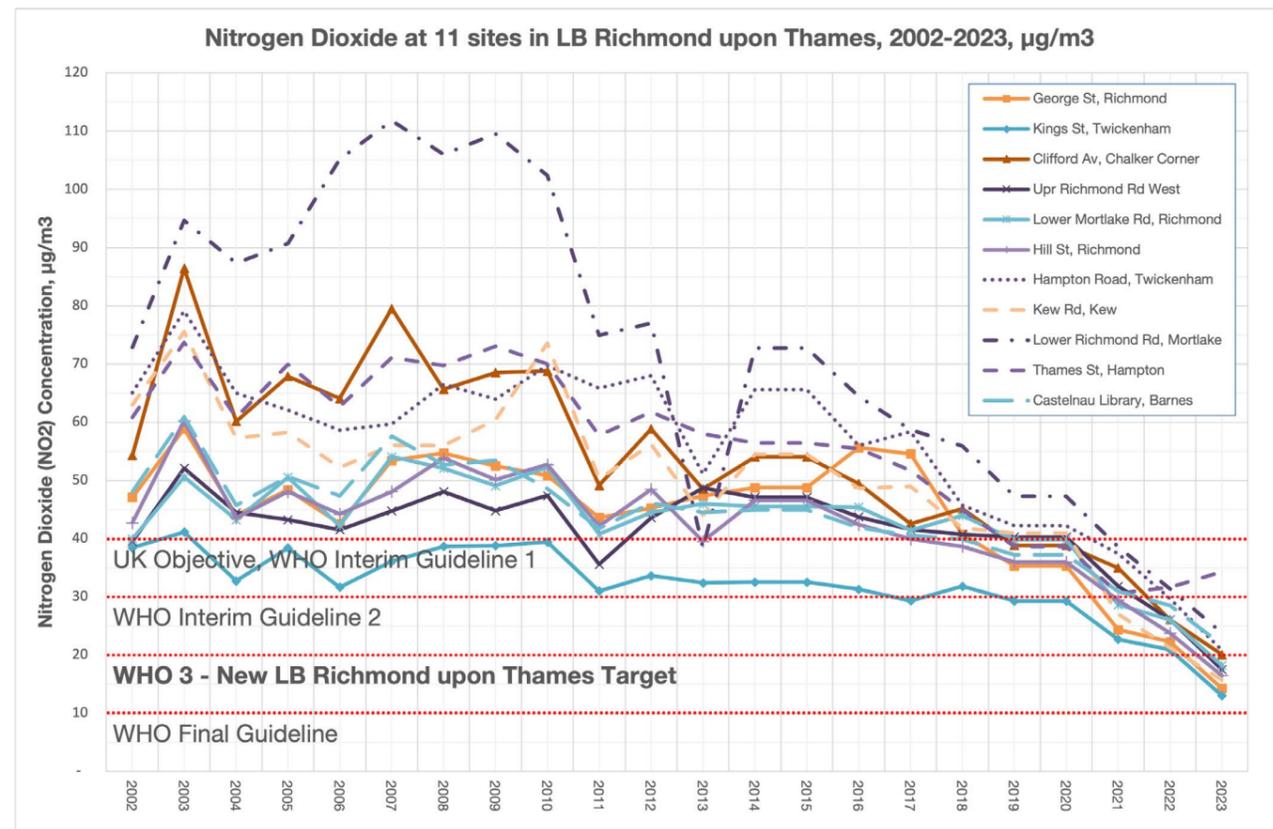


Figure A1. Annual average NO₂ measurements at 11 sites in the borough over 2002-2023, in µg/m³. Also shown are the UK, WHO and new borough targets.

The Council has been highly proactive. Hundreds of EV chargers, cargo delivery schemes, parcel lockers and engine idling work have reduced emissions from our roads. Better footpaths and new bike paths have made it safer to walk and cycle. New school streets and school air quality assessments have made schools safer. And we've taught school children about how to protect themselves from air pollution and reduce it. The Council has made developers avoid creating new traffic, support active travel and minimise emissions from buildings and during construction. And the Councils work implementing an Ultra-Low Emission Zone for Construction across London has been exceptionally successful. It has cut by nearly half the toxic emissions from construction site machinery.

These measures have been very effective. The results is that the borough has some of the cleanest air in London, and we are proud of how our work has improved our air compared to others. But air pollution still remains the 3rd overall cause of preventable mortality in the borough, and contributes to many diseases like ischaemic heart disease, lung cancer, dementia and asthma. To tackle it we must fully understand the risks and causes.

Methods uses to map air quality risks

Mapping our local air quality risks helps us identify areas with the highest air quality risks. This helps us prioritize where and who to engage with to achieve the biggest benefit. To map these risks we use a network of monitoring stations and systems. These measure NO₂, PM_{2.5} and Coarse Particulate Matter (PM₁₀) in several different ways at around 120 locations. For these, the main metrics used to map risk are the annual average values of these air pollutants, as well as exceedances of hourly or daily means. We also use analyses of London-wide air quality conducted by the GLA, including the four priority Focus Areas in Richmond town centre, Upper Richmond Road West, Twickenham and Hammersmith Bridge Road. These London Atmospheric Emissions Inventory analyses help us understand local emissions. This is then combined with knowledge of exposure and vulnerability at these locations to determine which locations are most at risk. The results of this analysis are detailed below.

We also use health impact calculations completed for the Richmond area both by the Government (UK Office for Health Improvement and Disparities, 2024) and for the GLA by Imperial College (Dajnak, Evangelopoulos, Kitwiroon, Beevers, & Walton, 2020)

To enhance these capabilities and assist in further prioritisation, these mapping techniques will in future be extended to account for more detailed statistics on air pollution, health vulnerabilities, inequalities and inclusion, age groups, and heat risk, which when coupled with air pollution generates additional acute health challenges. Examples of some of these statistics are discussed on the following pages.

Continued overleaf...

Where are air pollution risks highest and lowest?

To study the level of risk we use several different standards. First we compare local measurements with the UK Government legally set objectives. While these use evidence from the WHO they would still allow air pollution to be the 3rd major cause of death locally. This is unacceptable. So we also compare local measurements with the guidelines set by the WHO itself. The WHO recommends that targets for the annual average NO₂ measurements are made progressively tighter, first to 40µg/m³ (the existing UK target in 2024), second to 30µg/m³, third to 20µg/m³ with a final goal of 10µg/m³. A similar approach is recommended for annual average PM_{2.5} with 10µg/m³ (the GLA's current target) the penultimate target and 5µg/m³ the final target. This have been partly adopted by the GLA and EU and some other UK Councils. By adopting this approach we ensure we are steadily working towards making your air safe to breath.

First we consider annual averages and peak levels of NO₂ measurements using our regulatory Diffusion Tube network. Comparing with the UK Government objectives, air quality meet the objectives everywhere except in Richmond town centre and near Upper Richmond Road West. In Richmond town centre two measurement sites exceeded the UK's annual average NO₂ objective of 40µg/m³ in 2022 (with 41µg/m³ and 43µg/m³), though this improved in 2023 to just one location exceeding (down to 40µg/m³). In 2022 Upper Richmond Road West exceeded the UK limit with 52µg/m³ and again in 2023 with 48µg/m³. NO₂ at these high exposure locations is a cause for concern and focussed action.

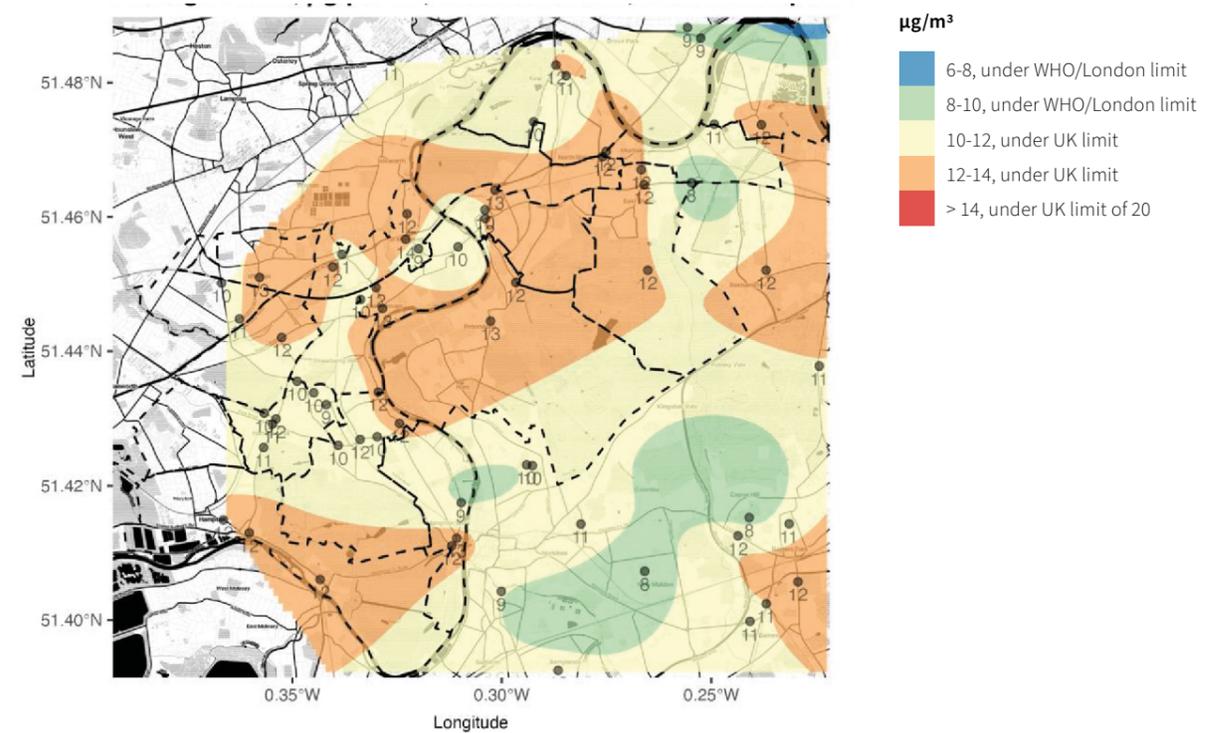
Compared with WHO NO₂ guidelines, a more mixed picture for NO₂ emerges, though still showing solid progress. Two sites away from roads are approaching the WHO final target of 10µg/m³ for annual average NO₂: Barnes Wetland Centre and Holly Lodge in Richmond Park. Air quality at both locations is very good, with low health risks. At about 2/3rd of locations, including near 28 schools, measurements are in the WHO Level 3 range of 20-30µg/m³, carrying some health risks. There are somewhat higher risks in the 1/3rd of locations, including 18 schools, in the Level 2 range of 30-40µg/m³. But at Richmond town centre and Upper Richmond Road West measurements exceed WHO guidelines.

Pollution there has significant health impacts, though exactly how much is hard to estimate.

Now consider annual average measurements of PM_{2.5}. The Mayor of London, following WHO recommendations, sets an annual average target of 10µg/m³ for Greater London. This is the same as WHO's Interim Target 4. Defra operates a very precise measuring instrument far from a road at the National Physical Laboratory in Teddington. This recorded PM_{2.5} levels at 9µg/m³ in 2022 and 8µg/m³ in 2023, similar to previous years. This achieves the London standard and approaches the WHO Final Target of 5µg/m³. This suggests that at locations well away from roads, PM_{2.5} poses low risks to health. Since 2022, the Council's own Breathe London automatic sensors have measured PM_{2.5} hourly at over 40 locations that have been strategically chosen due to their risks of being high human-exposure areas. These sensors detected annual PM_{2.5} levels exceeding the Mayor's 10µg/m³ target at all but four locations in 2022, but with much better results in 2023 with most locations inside the London/WHO target (see maps below). These sensors detected annual PM_{2.5} levels exceeding the Mayor's 10µg/m³ target at all but four locations in 2022, but with a much better results in 2023 with most locations inside the London/WHO target (see maps below).

Considering PM₁₀ measurements, we again use the WHO standards. Measurements were made in two places, one at a background site, away from the roadside, and the other closer to a road. Annual average PM₁₀ away from roads was 14µg/m³. This is inside WHO Interim Target 4 of 15µg/m³. Closer to roads the value was 15µg/m³. In both cases these represent a low risk to health. They are both much lower than UK limits. Similar results apply for short term high PM₁₀ events.

Average PM_{2.5}, µg per m³, Richmond 2022, Richmond upon Thames



Average PM_{2.5}, µg per m³, Richmond 2023, Richmond upon Thames

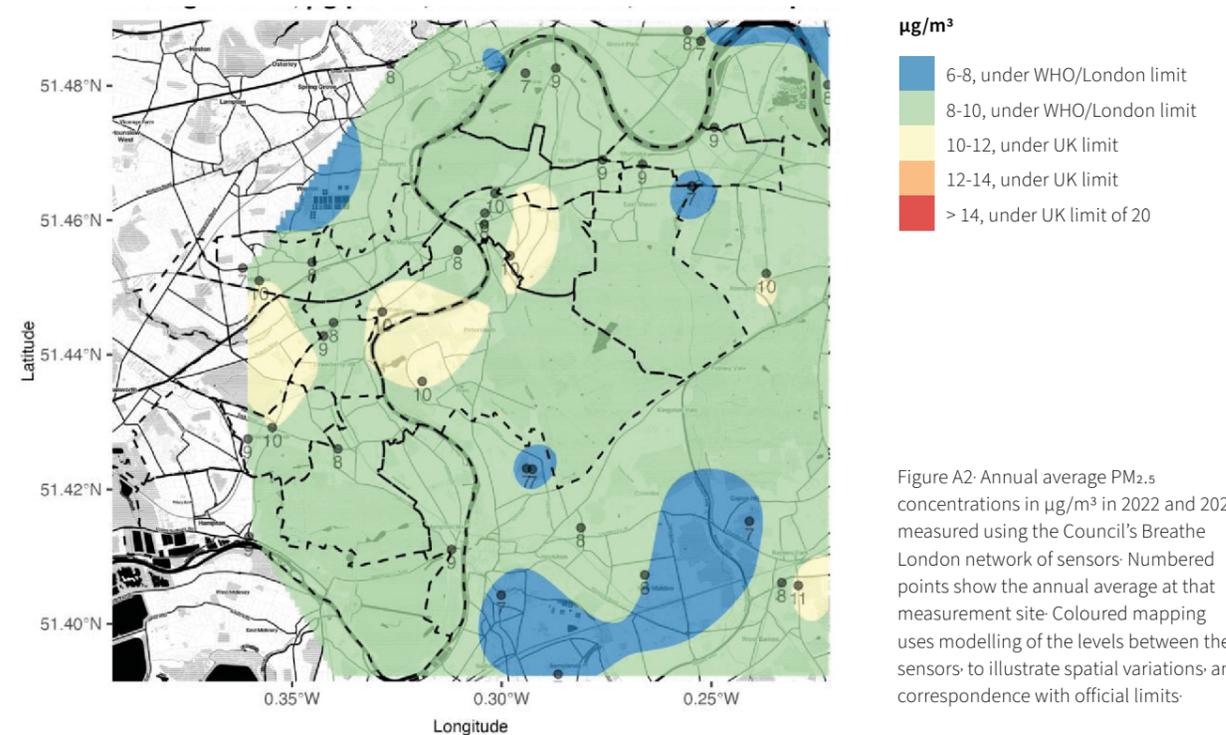
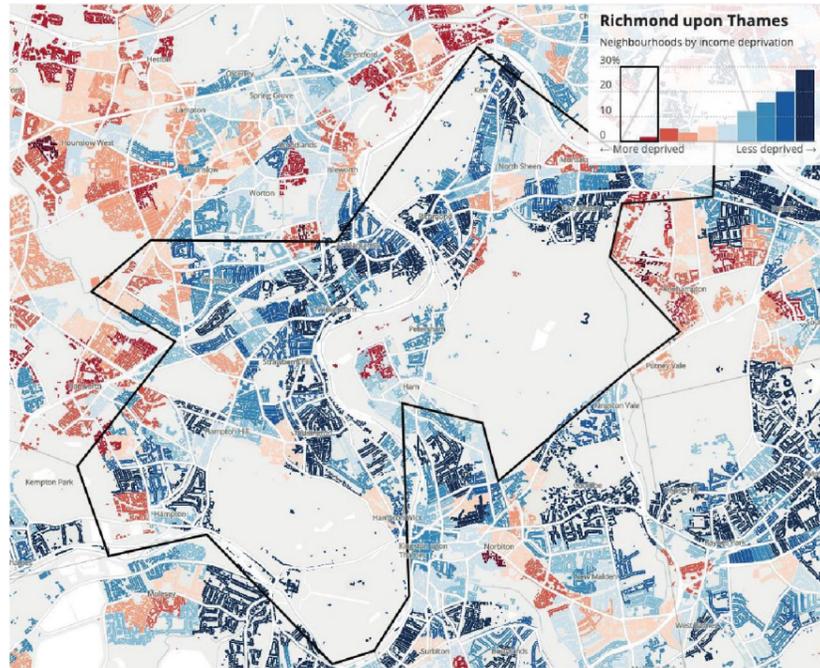


Figure A2: Annual average PM_{2.5} concentrations in µg/m³ in 2022 and 2023 measured using the Council's Breathe London network of sensors. Numbered points show the annual average at that measurement site. Coloured mapping uses modelling of the levels between the sensors to illustrate spatial variations and correspondence with official limits.



Of the 115 neighbourhoods in Richmond upon Thames, 2 were among the 20 percent **most income-deprived** in England. This is shown in the first two bars in the chart on the top right in red.

Figure A3. From ONS publication 'Mapping income deprivation at a local authority level: 2019,' based on the English Indices of Multiple Deprivation: 2019, to Lower Super Output Area (LSOA), 2019.

Mapping of inequalities indices and poorer air quality

People in deprived areas have greater vulnerability to air pollution. So areas where both deprivation and air pollution are higher need special attention. Considering air quality alone might miss these areas that deserve action.

For income deprivation, the borough is ranked 282nd out of the 316 English councils. But two neighbourhoods are in the bottom fifth most income-deprived in England (see Figure A3). Several neighbourhoods are below the English average. These include areas in the Mortlake, East Sheen, North Sheen hotspot areas. It also includes areas in Hampton, Hampton Hill and Whitton. There, NO₂ levels in 2022 and 2023 were in the range 20-30µg/m³, and PM_{2.5} levels in 2022 exceeded our target of 10µg/m³.

People who are naturally more vulnerable to air pollution

Some people are naturally more vulnerable to air pollution, so air pollution affects them more. This includes young children, older people and

people with medical conditions like asthma or cardiovascular disease.

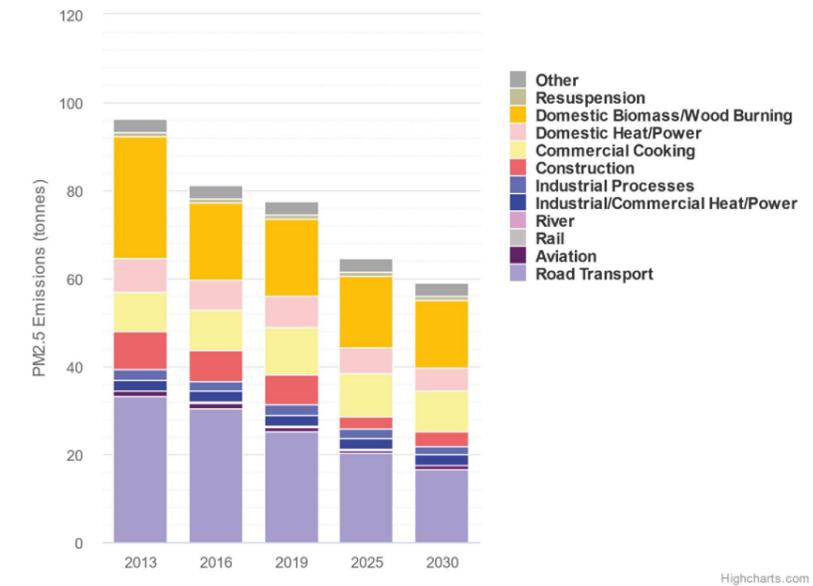
Local emissions and their implications for actionable policy

Local emissions come from a very wide range of sources and having a good understanding of these allows us to prioritise areas for action. Results of the most recent London Atmospheric Emissions Inventory (Greater London Authority & Transport For London, 2022) are shown in the figures below.

This indicates that PM_{2.5} emissions are expected to be dominated by road transport, domestic wood burning and commercial cooking at least until 2030. Emissions of PM₁₀ are thought to be dominated by road transport (both emissions and resuspension), with the other major large source being construction. Emissions of Nitrogen Oxides (NO_x) are expected to no longer be dominated by road transport by 2030. By then aviation related NO_x will be the dominant source, commercial heating the second main source.

LAEI - Emissions Trend by Source

PM_{2.5} Emissions, Richmond



LAEI - Emissions Trend by Source

PM₁₀ Emissions, Richmond

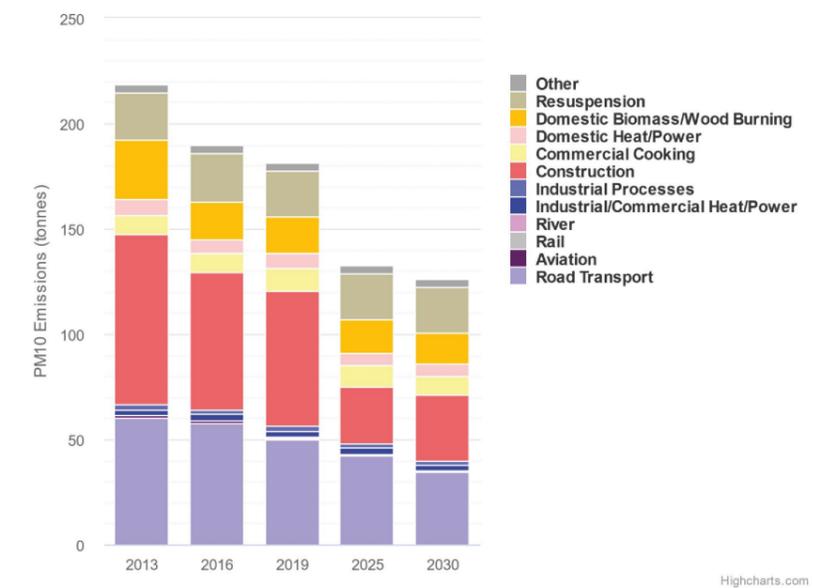
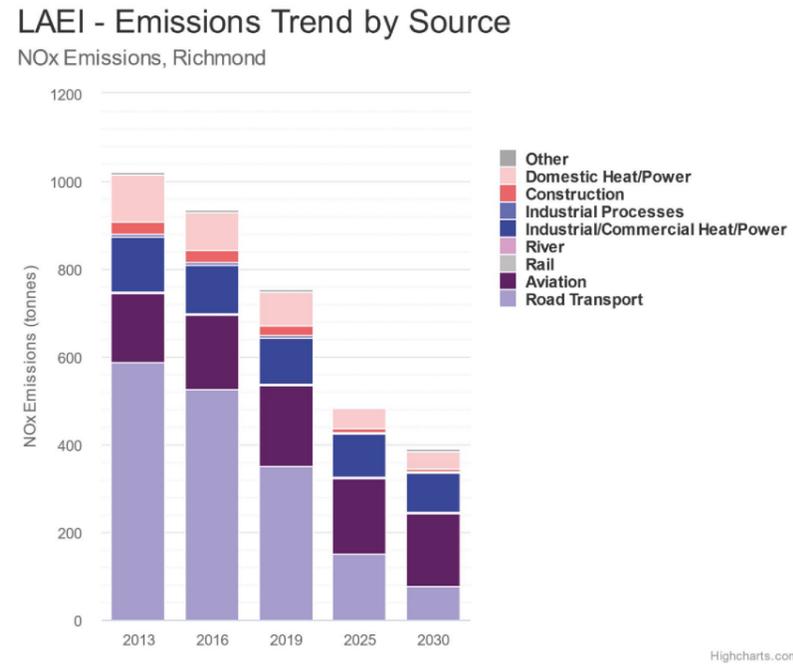


Figure A4. Estimated emissions of PM_{2.5}, PM₁₀, and NO_x (in tonnes) in Richmond in 2013, '16, '19, '25 and '30, from the 2022 revision to the 2019 London Atmospheric Emissions Inventory, a model of emissions across London at high spatial resolution.



What this analysis tells us

Taken together this analysis indicates that:

- Road transport, construction and commercial heating must be the foci of immediate local action.
- Air quality outside schools is higher than the WHO recommends. Action is needed to protect vulnerable populations and reduce NO₂.
- Richmond Town Centre should be a priority due to high NO₂ levels and pedestrian footfall.
- Upper Richmond Rd West and Chalker's Corner area require additional actions to reduce NO₂ levels to below UK and WHO recommended limits.
- Twickenham, Teddington, East Sheen, and Whitton have air quality compliant with UK objectives. But considering WHO guidelines, inequalities and pedestrian footfall, PM_{2.5} and NO₂ levels at these places should be reduced.
- Vulnerable individuals other than school children should be supported in collaboration with the NHS.
- There continues to be a significant need to develop new policy at London and national level on wood burning.
- Commercial cooking is a key area for future action once solutions are identified.

Appendix B. Richmond's New Air Quality Objectives: Why They Matter

Table B1: WHO recommended air quality guideline levels and interim targets

Pollutant	Averaging time	Interim target				Level, µg/m ³
		1	2	3	4	
PM _{2.5}	Annual	35	25	15	10	5
NO ₂	Annual	40	30	20		10

Table B1. WHO guidelines for NO₂ and PM_{2.5}, showing approximate current situation in yellow and Richmond targets for 2024-2029 in green.

The Council has set new goals for air quality in the borough that are challenging but achievable. They are based on the WHO Guidelines for Air Quality published in 2021 (World Health Organization, 2021). The guidelines are based on the latest scientific evidence which increasingly points to air quality as a major source of ill-health and improving air pollution being a key route to improving public health. To explain our choices, we summarise the scientific evidence below.

The science behind the WHO guidelines

The WHO 2021 guidelines for air quality are the first major update since 2005. It significantly reduced many of the recommended air pollution levels, considering substantial new evidence. Since the 2005 review, thousands of research studies had taken place in most regions of the world. This expanded the research base beyond Europe and North America as it was in 2005. This new research linked air pollution with many new health conditions. The strongest links were found to cardiovascular disease and cancer, but also asthma, diabetes, reproductive outcomes, and neurocognitive issues. The research included efforts to pinpoint the most toxic sources and components of PM. A major focus was particles made by combustion and particles made by chemical reactions between air pollutants.

Continued overleaf...

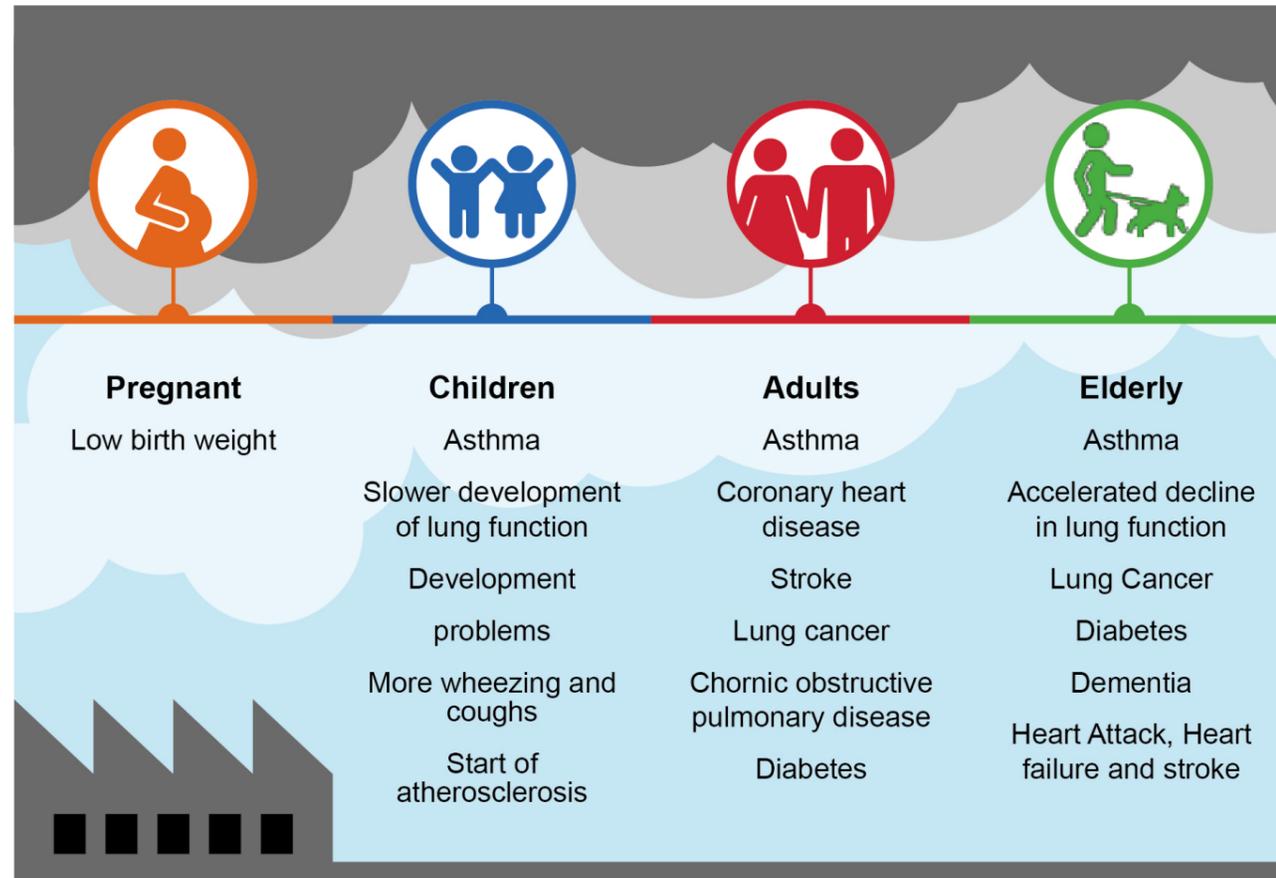


Figure A4. Impacts of air pollution on human health at different stages of life. From Chief Medical Officer’s Annual Report 2022, Dept of Health, 2022.

Some links were harder to identify, especially short-term and long-term effects of various pollutants. Large-scale studies delivered by collaborations of many research centres around the world resolved these questions. Advancements have also been made in exposure assessment methods, statistical analysis techniques, and linking causes to outcomes. These made possible more accurate estimates of how many people in the world get sick or die from air pollution, particularly PM_{2.5} exposure.

Here are the key findings. Highly reliable evidence was found that long term exposure to PM_{2.5} causes deaths from cardiovascular disease, all lung diseases, and overall death rates excluding accidents. The harms are thought to be caused by the fine particles getting into the lung tissue and blood. In the blood it travels throughout the body, including into unborn babies. Everywhere that they lodge they cause inflammation which then causes other diseases.

Coarse particles (PM₁₀) were found to cause deaths

from heart disease, lung cancer and other respiratory illnesses, as well as all overall death rates excluding accidents. The harms are thought to be come from PM₁₀ particles sticking in the upper airways and lungs. The metal and other chemical components then cause inflammation. For NO₂ quantifiable links were made to deaths from Cardio Obstructive Pulmonary Disease (COPD), respiratory disease and acute lower respiratory infections, as well as all non-accidental cause mortality. Research in London has also found links between childhood exposure to NO₂ and reduced lung capacity, affecting children over the whole subsequent course of their lives.

Considering all this **the new guidelines are in almost every case substantially lower than the previous concentrations.** The annual average limit for PM_{2.5} has been cut by half. As [The Lancet medical journal](#) put it, **“this means that PM_{2.5} is incredibly hazardous.”** Similarly, the guidelines for NO₂ have been reduced from 40µg/m³ to 10µg/m³. The goal

of the WHO guidelines are that governments work “towards reducing exposures every year, as much as you can, and if you can manage that there will be important health benefits to the population” (World Health Organization, 2021).

Research on whether air pollution can be fixed

In addition to research into the health effect of air pollutants, over the 2005-21 period, extensive work was done to see how to fix the problem. This included work on the links to climate change and to see whether fixing air pollution could also solve other problems. Work was also done to understand whether physical activity improves our health. This research improved both our ability to:

- Improve air quality;
- Improve air quality and climate change together;
- Improve both together using sustainable transport and energy efficiency schemes.

Another major innovation was caused by the VW Emissions Scandal. This led to improvements to diesel vehicle emissions controls. Widespread adoption of these technologies means that new diesel cars today are only 2-3 more polluting than petrol cars. There have also been enormous improvements in electric vehicle technology and cost. By 2012 the technologies had advanced such that electric buses could be introduced on certain, carefully planned routes. Today London alone has over 3000 electric buses in operation. Extraordinary improvements have been made in electric car technologies and economics. This allows the gradual transformation of car fleets to zero tailpipe emissions. And new technologies for home and commercial heating and insulation have been driven by needs to address climate change. Over time we expect these to eliminate PM and NO₂ emissions from space heating.

Our long term vision is to deliver these guidelines

This evidence suggests that that UK Government’s current annual target for NO₂ of 40µg/m³ is inadequate to protect people’s health. Repeated Governments have chosen to maintain it despite many other nations adopting tighter standards, including in the EU.

To improve your health, the evidence tells us to be more ambitious. By 2029 our goal is to reduce the annual average concentration of NO₂ gas below 20µg/m³ at all measurement sites in the borough. This is the WHO Interim Target 3 for ambient NO₂ (see Table B1). This is the same as the approach adopted by our EU neighbours and it is a strong complement to the GLAs annual average PM_{2.5} target for London of 10µg/m³. We anticipate that once Richmond’s 20µg/m³ target has been achieved we would adopt the final WHO target for NO₂.

Developments and infrastructure proposals, plans and policies will be measured against these objectives, unless the UK objectives become tighter than these.

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Appendix C. Implementation, Monitoring, Statutory Duties

List of time bounded actions and KPIs using London Local Air Quality Management thematic approach

Prioritisation scheme

1. Lead policy and programme priorities for Regulatory Services (AQ);
2. Operational delivery by Regulatory Services (AQ) of funded core duties, projects and programmes;
3. Delivered by others with secured funding, with AQ support as required;
4. Operational delivery by Regulatory Services (AQ) of projects and programmes that depend on securing funding;
5. Completed actions, included to note.

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Setting the right policy context	Setting an ambitious goal of 20µg/low for annual mean NO2 by 2030 in line with the WHO progressive guidelines, to be used to assess development and other projects. (none)	HIGH/1	Q4 24/25: Finalise policy. Q3 29/30: Achieve objective.	Regulatory Services (AQ), Policy
	Pressing for TfL to prioritise electrification of bus routes through our Richmond Town Centre and Upper Richmond Road West, in collaboration with London Councils and neighbouring boroughs. (none)	HIGH/1	Q3 29/30: ZEV upgrade of routes H22, 190, 337, 419, 490, 493 and R68	Transport Strategy (Place), Regulatory Services (AQ), Climate Change, Policy and Communications
	Continue opposition to Heathrow expansion by working with other councils and the Mayor of London. (none)	3	Continue to monitor development around Heathrow expansion.	Assistant Chief Executive
	Develop a new Richmond Climate Emergency Strategy 2025-2030, with the goal of being a carbon neutral council by 2030 and net zero borough by 2043. (none)	3	Q4 25	Climate Change, Policy and Communications
Borough fleet actions	Increasing the number of hydrogen, electric, hybrid, bio-methane and cleaner vehicles in the boroughs' fleet. ; Accelerate uptake of new EVs vehicles in borough fleet. (17)	LOW/4	Ongoing: Council is implementing its vehicle decarbonisation plan, which replaces vehicles at end-of-life with EVs.	Financial Services / Climate Change, Policy and Communications

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Cleaner transport	Discourage engine idling by taxis, coaches and other vehicles (e.g. through anti-idling campaigns or enforcement activity). (21)	MED/2	Q4 2025: Building on our Idling Action Events Programme, we are reinforcing this with introduction of a new Public Service Protection Order to support this.	Regulatory Services (AQ), Policy & Financial Services
Cleaner transport	Programme of EV charger installations, including rapid chargers and chargers in gullies. Rapid chargers for electric taxis, cabs and commercial vehicles. (21)	MED/3	Q4 24/25: 200 new chargers, identify funding for further rollouts with emphasis on rapid chargers	Transport Strategy (Place)
	Clean Air Day and similar events that promote alternative road uses. (22)	MED/4	Annual: Clean Air Day. On demand: Resident and business led Play Streets programme to allow local road closures when selected by the community.	Regulatory Services (AQ), Transport Strategy (Place)
	Increasing the proportion of electric, hydrogen and ultra-low emission vehicles in Car Clubs. (24)	MED/4	Q4 24/25: confirm new operator, provide additional on-street spaces, enforce planning obligations for car club spaces and membership. Ongoing: Good Move scheme offering car club memberships.	Transport Strategy (Place)
Cleaner transport	Surcharge on vehicles based on emissions for standards for parking related permits.	LOW/4	We will review the efficacy of emissions based permitting schemes as necessary,	Regulatory Services (AQ), Engineering Services (ECS)
Cleaner transport	Provision of infrastructure to support walking and cycling. (25)	MED/3	Q4 25: 700 bike parking hub at Richmond Station Q4 24/25: 33 new bike hangars	Transport Strategy (Place), Engineering Services (ECS)

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Continued from previous page	<p>Reallocation of road space; reducing parking at accessible destinations and/or restricting parking on congested high streets and busy roads to improve bus journey times, cycling experience, and reduce emissions caused by congested traffic (38)</p> <p>Support delivery of the Richmond Vision programmes to transform the town centre, reducing through traffic.</p> <p>Deliver LIP goals including reduction of overall vehicle-kms in the borough. (25)</p>		<p>Q4 24/25: Implement 11 e-cargo bike bays and bays on school streets; monitor roll out of dockless e-bikes; roll-out affordable residents hire of bikes, e-bikes and cargo-bikes</p> <p>Q4 25/26: Complete next phase of Richmond Vision programme, including investigating ways to reduce through traffic in Richmond Town Centre.</p> <p>Continued from previous page.</p> <p>Ongoing: Good Move scheme offering bicycle trials</p> <p>Ongoing: use CIL funding to implement improvements to junctions, crossings, bus stops etc at Upper Richmond Road West, Chalkers Corners and surrounds to reduce emissions</p> <p>Ongoing: Identify funding for and deliver new walking and cycling infrastructure at locations including: Richmond Town Centre, A310 corridor Teddington-Twickenham, A305 Staines Rd, London Rd, Cole Park Rd, A316/London Rd junction, new links on cycle route C40.</p> <p>2041: 5%-10% reduction in vehicle-kms</p>	

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Council's own emissions	Increase staff and Elected Member knowledge, skills and collaboration on climate change and sustainability; Support staff to travel sustainably. (17)	LOW/3	Roll out sustainability training across all staff and councillors by Q4 24/25; Increase communications on staff sustainable transport options.	Climate Change, Policy and Communications
Delivery servicing and freight	Virtual Loading Bays and priority loading for ultra-low emission delivery vehicles (16)	HIGH/4	Q4 25/26: virtual loading bay schemes at Richmond and Barnes to be evaluated and expanded, contingent on funding.	Regulatory Services (AQ)
Delivery servicing and freight	Re-organisation of freight to support consolidation (or micro-consolidation) of deliveries, by setting up or participating in new logistics facilities, and/or requiring that council suppliers participate in these. (11)	LOW/4	Continue work with the Cross River Partnership on identification of consolidation hubs and parcel locker locations.	Transport Strategy (Place)/ Engineering Services (ECS)
Delivery servicing and freight	Establish and launch a pilot programme to connect experts in the borough with businesses, community groups and other stakeholders requiring support relating to climate and sustainability issues. (11)	LOW/4	Q4 24/25	Climate Change, Policy and Communications
Emissions from developments and buildings	Delivering London's programme to enforce Non Road Mobile Machinery (NRMM) air quality policies during construction and development (3)	HIGH/1	Ongoing: Deliver London's NRMM emissions control programme; Q4 24/25: manage the transition to EU Stage IV; Ongoing: conditions to be imposed on 100% of local planning applications.	Regulatory Services (AQ)

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Emissions from developments and buildings	Enforce National Planning Policy Framework, the London and UK CHP and biomass air quality policies, the GLA Air Quality Neutral and Air Quality Positive; require that adequate, appropriate, and well located green space and active travel infrastructure are included in new developments; and minimise emissions during construction. (2, 4, 5, 6, 9)	HIGH/2	Ongoing: Conditions to be imposed as necessary to enforce the LBRuT Supplementary Planning Document (2020) including these policies for all new developments. Monitor effectiveness on a case-by-case basis. Annual: review of effectiveness as part of the ASR process.	Regulatory Services (AQ)
Emissions from developments and buildings	Enforcement of the borough wide Smoke Control Zone; enforcing ban on allotment, builders and other bonfires; supporting comms via social media and events based communications on wood burning; comms programme aimed at boat dwellers; new awards programme for restaurants targeting commercial kitchens. (7)	MED/2	Ongoing: enforcement driven by complaints, observations and enquiries; Ongoing: comms on wood burning, bonfires, etc; Healthy Waterways outreach programme to boat dwellers; By 2027: awards programme for commercial kitchens;	Regulatory Services (AQ) & Communications
Emissions from developments and buildings	Deliver a new Local Plan with improved planning requirements for climate change; promote the replacement of old boilers and insulation schemes, in both LBRuT properties, local social housing and for 'able to pay' residents. (8)	HIGH/3	Q4 24/25: Deliver new Local Plan; Launch ECO4 based home efficiency scheme; promote GLAs HUG2 scheme for low-income homes and HMG Boiler Upgrade Grant; promote retrofit advice for 'able to pay' residents.	Property Services, Climate Change, Policy and Communications
Emissions from developments and buildings	Retrofit Skills Training for Energy Efficiency and Carbon Reduction. (none)	MED/3	Work with local education and training providers including U. of Roehampton, Richmond College and St Marys University to increase provision of retrofit skills and Training. Work with South London Partnerships on delivery of programme to support, develop and promote retrofit skills	Economic Development / Climate Change, Policy and Communications

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Localised Solutions	While Low Emission Neighbourhoods have not been supported by residents, work is ongoing to improve junctions and other measures to reduce high traffic events on small local roads, where supported by residents. (19)	LOW/3	Ongoing	Engineering Services (ECS)
Localised Solutions	As part of the Tree Planting Strategy, locations for tree plantings and hedges will be identified that mitigate air pollutant emissions at key locations; TfL will be lobbied to introduce hedging on major roads; green infrastructure will be required in new developments. (18) Eliminate diesel emissions from non-itinerant food trading, including ice cream vans. providing battery "generators" or shore supply for active trading stands. (none)	MED/4	Q4 25/26: Development of the Tree Planting Strategy; Ongoing: AQ support for Trees & Biodiversity teams. On demand: battery "generators" for traders, installation of shore supply	Trees, Biodiversity, Regulatory Services (AQ)s
Managing air quality	Monitor air quality to a high standard, analysing and disseminating the results to policy makers, residents and delivery partners (1)	2	Monitor air quality at our network of long term passive and automatic sites; review and adjust network quarterly; deliver schools and other targeted monitoring projects; invest in new equipment at Richmond Town Centre and elsewhere as required;	Regulatory Services (AQ)

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Managing air quality	Encourage and support citizen science activities that identify and tackle air pollution. (12)	LOW/4	Ongoing: contingent on funding provide workshops, monitoring support and communications to support citizen science activities	Regulatory Services (AQ)
Public health and awareness raising	LBRuT promotes airTEXT through the Council and Love Clean Air websites, and in communications, events and workshops with residents. (12)	LOW/2	Ongoing	Regulatory Services (AQ) & Communications
Public health and awareness raising	Improve children's asthma management by combining personalized air quality monitoring with expert medical guidance to empower families with actionable, environment-specific insights. (12)	LOW/2	Ongoing: training Q4 25/26: review delivery of the programme and seek additional funding	Regulatory Services (AQ), Public Health & NHS
Public health and awareness raising	Conduct assessments of indoor air quality and promote this information to residents and vulnerable groups. (14)	LOW/2	Q4 24/25: complete purchase of indoor AQ monitoring equipment Ongoing: conduct assessments, events and communications	Regulatory Services (AQ)
Public health and awareness raising	Deliver a programme of business engagement, including work on deliveries and loading bays, information on air pollution sources, and an awards scheme for commercial kitchens. (11)	LOW/4	Ongoing: work on business engagement Q4 25/25: Pilot commercial kitchens award scheme	Regulatory Services (AQ)

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Public health and awareness raising	Regularly brief and work with the Director of Transport and the transport policy and scheme implementation teams on the health impact of air pollution, and their role for delivering their public health duties, as well as on air quality opportunities and risks related to transport in the borough. (10)	HIGH/1	Quarterly: update meetings with Transport; Ongoing: AQ support for Transport Strategy development events.	Regulatory Services (AQ), Place, ECS
Public health and awareness raising	Meet quarterly with Directors of Public Health (DsPHs) and their teams to brief on air quality, what is being done, and what is needed. Support them on development of the JSNA and consult them on developing air quality policies. Director of Public Health to sign off Statutory Annual Status Reports and all new Air Quality Action Plans. Director of Public Health to have responsibility for ensuring their Joint Strategic Needs Assessment (JSNA) has up to date information on air quality impacts on the population. (10)	MED/2	Quarterly: AQ-PH colocation to ensure information and projects are aligned; Annual: PH-AQ consultation re ASR, JSNA updates and other major milestones.	Regulatory Services (AQ) & Public Health
Public health and awareness raising	Implement a series of projects with the Public Health Team and with the SW London NHS Cluster on air quality information for medical services and professionals, and cascading information to patients and vulnerable groups. (10) Mapping risks and impacts of air pollution in combination with climate and other risks. (none)	2	Quarterly: Alignment meetings AQ-PH on joint projects delivery. Q4 2025: Incorporation of AQ and vulnerabilities data in climate risk mapping	Regulatory Services (AQ), Public Health, Climate Change and SW London NHS Cluster

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Public health and awareness raising	The Transport Strategy and Safety Education teams collaborate with schools to promote healthy, safe, and active travel, so schools meet their School Travel Plan (STP) targets and achieving STARS accreditation. (13)	MED/3	Ongoing	Transport Strategy (Place), Engineering Services (ECS)
Public health and awareness raising	Deliver a programme of air quality related interventions in schools (14)	LOW/4	Ongoing: interventions programme for schools, including workshops, AQ monitoring, AQ assessments, filtration funding applications and delivery, and interventions targeted at vulnerable students. Annual: Report to AQ & Transport Committee on effectiveness	Regulatory Services (AQ)

London Local AQ Management Theme	Measure and (in brackets) LLAQM Matrix number	Impact/ Priority	Timescale & Milestones	Lead
Completed LLAQM Matrix action				
Public health and awareness raising	Strengthening co-ordination with Public Health by ensuring that at least one Consultant-grade public health specialist within the borough has air quality responsibilities outlined in their job profile (as part of a wider role, not a dedicated air quality post). (10)	LOW/5	Completed	Public Health
Delivery servicing and freight	Procurement policies ensure sustainable logistical measures are implemented (and include requirements for preferentially scoring bidders based on their sustainability criteria) (15)	LOW/5	Completed: LBRuT uses the West London Low Carbon Procurement Policy (2021).	Procurement
Borough fleet actions	Smarter Driver Training for drivers of vehicles in Borough Own Fleet i.e. through training of fuel efficient driving and providing regular re-training of staff. (17)	LOW/5	Completed and ongoing	
Cleaner transport	Speed control measures e.g. lowering the legal speed limit to 20mph in built up residential areas.	MED/5	Completed	Engineering Services (ECS)
Borough fleet actions	Join the Fleet Operator Recognition Scheme (FORS) for the borough's own fleet and obtain Gold accreditation. (17)	LOW/5	Completed and ongoing	
Delivery servicing and freight	Update local authority Procurement policies to include a requirement for suppliers with large fleets to have attained silver Fleet Operator Recognition Scheme (FORS) accreditation. (15)	LOW/5	Completed	

