

LOCAL AUTHORITIES AND AIR QUALITY

A summary of action taken by London boroughs
to improve air quality in 2020

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INTRODUCTION

Purpose of this Report

This report has been compiled using the statutory air quality Annual Status Reports submitted by London's 32 boroughs and the City of London, to share best practice between local authorities. Sharing information and working together has become increasingly important in the current context as we face a range of new challenges, despite the huge air quality improvements resulting from the Mayor's Ultra Low Emission Zone and other initiatives. This includes the challenge of working towards the new, tighter, World Health Organization (WHO) targets for both fine particulate matter (PM_{2.5}) and nitrogen dioxide (NO₂), as well as a very constrained economic situation for Transport for London resulting from the lack of essential support from Government. Many of London's boroughs are also facing unprecedented financial pressures.

There is also increased need for authorities to work together to deliver the coroner's recommendations from the inquest into the death of Ella Adoo-Kissi-Debrah. One of his key findings were that all layers of government need to do more to raise awareness about air pollution, and this is clearly an area where co-ordinated work and information-sharing ensures increased effectiveness, as initiatives such as the Idling Action project demonstrates. This was a pan-London awareness raising project funded through the Mayor's Air Quality Fund and led by Camden and the City of London which has seen boroughs work together to successfully amplify awareness of idling and air pollution. By October 2021, the project had an estimated reach of over nine million people.

The pandemic has highlighted the pressing need to address air pollution, including: the stark health inequalities in this country; the tangible benefits of cleaner air and quieter streets during lockdown; and the potential links between pollution exposure and worse outcomes from COVID-19. In addition, in light of the Glasgow Climate Pact and the Mayor's net zero by 2030 commitment it is clearer than ever that we need to tackle the twin dangers of the climate emergency and toxic air. However, as the pandemic has had significant implications for TfL and borough resourcing, we need to do more with less.

By compiling this Compendium, we hope to enable boroughs to understand more about pollution and solutions across the rest of London's local authorities. This report simply collates information provided by the boroughs. It does not provide an assessment or comparison of performance and it is very important that it is not used for these purposes. As detailed in the monitoring summary below, it is not possible to use local monitoring data to compare boroughs – as this would generally present a skewed representation for boroughs who have more monitors than others and/or have located them in the most polluted places.

Headline Outcomes from 2020

Some of the key areas of progress in 2020 were:

- **Increased monitoring:** Compared to 2019, automatic Particulate Matter (PM_{2.5}) monitoring increased by approximately 16%. Automatic Particulate Matter (PM₁₀) monitoring increased by 3%, and Nitrogen Dioxide (NO₂) by 4%. Lower-cost passive (diffusion tube) NO₂ monitoring also increased by 23%.
- **Continuation through the pandemic:** Boroughs worked hard to maintain their focus on air quality issues throughout a challenging year. Most diffusion tube monitoring surveys suffered very limited disruption.
- **Improved transparency:** All boroughs completed their ASRs by October 2021 (due to resourcing issues presented by the COVID-19 pandemic, boroughs who needed it were granted extensions as needed).
Completion of this report enables residents to see summarised pollution data and to check the Council's progress on delivering against their AQAP obligations.
- **Improved Action Planning:** Most AQAPs are up to date or in the process of being updated. The exceptions are Bexley, who are planning to commence updates ASAP, and Harrow, whose update was in progress but was not finalised due to staff vacancies. We are in regular discussions with both boroughs to try and expedite their action planning.
- **Improved Working Across Boroughs:** When updating their AQAPs, all boroughs used the Air Quality Action Matrix and Action Plan template provided by the GLA as a basis. This has facilitated more consistent action across boroughs.
The GLA checks all draft AQAPs twice before publication and works closely with boroughs to ensure they are as ambitious and quantifiable as possible.
Multiple cross-borough initiatives are also thriving across London, often facilitated with funding from the Mayor's Air Quality Fund. This includes the Non-Road Mobile Machinery project which inspects equipment on construction sites to ensure it complies with the approved standards, and is led by Merton, as well as the Idling Action project led by Camden and City of London, and the Healthy Streets Everyday project led by Islington and Cross River Partnership.
- **Continued Delivery of Air Quality Action:** During 2020 considerable focus was placed on measures that promoted and facilitated sustainable travel and raising public awareness. There was an increased number of electric vehicle (EV) charging units installed; improvements to sustainable travel infrastructure (primarily of cycle routes); a number of Low Traffic Neighbourhoods (LTNs); and School Streets making safer and cleaner journeys to school for the capital's children.

Monitoring Summary

There is significant variation in monitoring provision between boroughs and results are not always readily comparable. Some boroughs, for example, may have more monitors located in their most

polluted areas than others so it does not necessarily follow that if they have a higher number of locations with elevated concentrations they are more polluted. Bexley and Harrow, for example, do not currently undertake diffusion tube surveys, therefore the understanding of NO₂ concentrations is more limited. It is important to bear this in mind when looking at the monitoring summaries contained in the body of this report.

AQMAs are generally declared at a whole borough level, and there is often a lack of monitoring in air pollution 'hotspots' or Air Quality Focus Areas (AQFAs) as a result. The most useful way to use monitoring information is to compare data from recent years at the same site with data from previous years. To compare borough-wide pollution concentrations it is best to refer to the London-wide concentration modelling in the [London Atmospheric Emissions Inventory \(LAEI\)](#).

In 2020, the number of locations where passive diffusion tube and continuous monitoring of NO₂ was conducted across London was 1,699 and 127 respectively, an increase of 23% and 4% compared to 2019. During 2020, twelve boroughs did not record any exceedances of the NO₂ annual mean AQO. In 2019, all but four boroughs recorded exceedances of this objective. This demonstrates positive continued improvement, but a borough not recording exceedances doesn't mean that the whole borough is under this limit. As stated above, some boroughs have limited monitoring networks and our studies and modelling suggest that in 2020 all boroughs would still have had some areas exceeding this objective.

The number of sites exceeding the annual mean NO₂ Air Quality Objectives (AQOs) reduced from 518 in 2019 to 100 in 2020, a decrease of 80%. This decrease can be partly attributed to the COVID-19 pandemic, where government restrictions drastically reduced the number of vehicles on the road. Since 2014, the downward trend in measured NO₂ hourly mean concentrations has continued, with only one monitor across all boroughs exceeding the objective in 2020, compared with two in 2019 and six in 2018.

The number of stations monitoring PM₁₀ increased by 3% from 103 locations in 2019 to 106 locations in 2020. Monitored concentrations across London have generally shown good improvement over the last seven years. However, monitoring of this pollutant is still relatively limited in terms of spatial coverage, primarily due to the cost of monitoring in this way, and sites are not always representing the 'worst-cast' locations. There were no exceedances of the annual or daily mean PM₁₀ objectives, except at one site in Lambeth, though the data should be treated with caution because the spikes recorded at the station are due to contamination from a nearby vent, leading to erroneous data which is not at all representative of the ambient air in the general area.

From 2019 to 2020, the boroughs collectively increased monitoring of PM_{2.5} by approximately 16%, helping to support the integration of air quality and public health objectives. In 2020, there were 52 automatic PM_{2.5} monitors across 22 boroughs, none of which recorded an exceedance of the Air Quality Objectives – although these are significantly less stringent than the recommended WHO guidelines, which have been updated in 2021. The Mayor has adopted a target to meet the interim WHO limit of 10 µg/m³ for PM_{2.5} by 2030 and asks boroughs to continue to work towards this target through the LLAQM system.

The increase in monitoring outlined above is testament to the commitment of boroughs to increasing their understanding of air pollution, as well as demonstrating the impact of the LLAQM system in helping to ensure that borough action is mandated, supported, and recognised.

It is important to note that, even with the encouraging NO₂ trend and the major improvements in air quality seen recently because of initiatives such as the ULEZ, several NO₂ pollution hotspots are predicted to remain until 2025. It is also necessary to bear in mind that 2020 concentrations were significantly affected by the impacts of lockdown on traffic levels. The GLA published a report on lockdown pollution concentrations, available [here](#).

Local action is still required to complement regional measures and target remaining hotspots. Furthermore, although London is meeting current legal PM_{2.5} limits, and close to achievement of the legal limits for NO₂, we are still a long way off meeting the WHO's new health-based limits for PM_{2.5} and NO₂, so concerted action is required across all levels of government until these levels are met.

The Mayor responded to COVID-19 lockdowns with his Streetspace scheme to reduce traffic and support safe and social distanced walking and cycling. In 2020, the Streetspace scheme supported more than 90kms of new or upgraded cycle infrastructure, and over 90 Low Traffic Neighbourhoods and 320 School Streets.

Sub-Regional Summaries

Boroughs are grouped into five sub-regions coordination purposes. The borough-specific information in the rest of this report is presented in line with these sub-regional boundaries but recognises that there are ongoing opportunities for developing effective air quality initiatives beyond these groupings.

A few highlights of borough action in 2020...

- Cycle training courses, both for businesses and local schools, have been implemented by most boroughs, to encourage the use of new cycle infrastructure.
- New charging points have been installed throughout London to support electric Car Clubs as well as encouraging the purchase of privately-owned EVs over petrol/diesel alternatives.
- Most boroughs are undertaking actions to target delivery servicing and freight activities, but these are limited in comparison to other measures implemented. Where this is undertaken, encouraging low emission vehicles for delivery and servicing freight is a common strategy, with zero or low emission delivery services and schemes providing local businesses with cleaner delivery options. For example, Hammersmith & Fulham have worked with Zipcar, Fulham Broadway and Cross-River partnership to launch the first electric van service for small businesses. In addition, Lewisham began specifying EV charging points for new loading facilities. Tower Hamlets, City of London, Haringey, Wandsworth, Richmond and Southwark use and facilitate the use of bikes as a courier and delivery method.
- Most boroughs are trialling, or have implemented, permanent Low Traffic Neighbourhoods to reduce emissions in localised pollution hotspots.
- The NRMM LEZ (Non-Road Mobile Machinery Low Emission Zone) enforcement programme has continued to be led by Merton and Richmond, to ensure development sites across London are using the cleanest construction equipment.
- Sustainable travel initiatives have been an area of focus, with many boroughs providing support to businesses and schools in the development and implementation of travel plans. Many primary and secondary schools are actively participating in the STARS accreditation scheme to achieve 'Gold' status, with Enfield and Brent leading the way with 26 Gold star accredited schools each.
- Focus on cleaner transport was more apparent in 2020, with many boroughs implementing tariff-based street parking vehicles. These include Haringey implementing a £80 surcharge fee for diesel vehicles.
- Hammersmith Flyover was awarded best EV charging destination 2020, with more than 100 electric vehicles charging each day.
- Camden continue to successfully implement the 'Clean Air Hospital' Framework for Great Ormond Street Hospital.
- Much work has taken place in 2020 to improve infrastructure for sustainable travel including the completion of the cycle route CRF10 Quietway from Barking Town Centre to Barking Riverside, the installation of bike hangers in many boroughs and the experimental A1000 cycle lane, creating 3.2km of cycle lanes in Barnet.
- 14 new clean air walking routes were developed in Wandsworth, to reduce exposure on pedestrian journeys.
- Westminster were awarded a Future Fleet Award 2020 for their retrofitting of waste collection

Key Recommendations

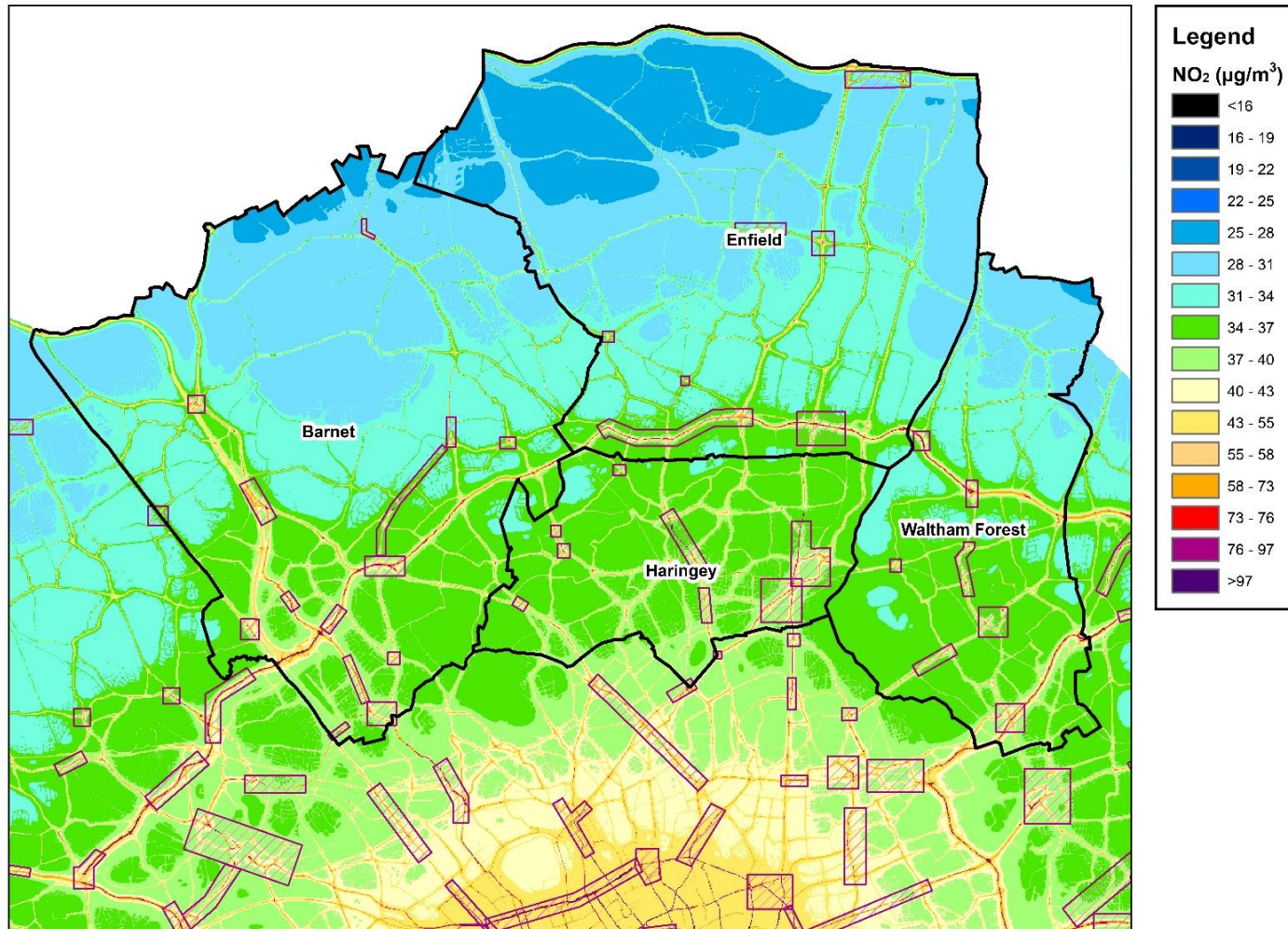
Priorities for the coming year should include:

- Meeting the interim WHO health-based target of 10ug/m³ by 2030 target for PM_{2.5}, with an increased focus on non-transport emissions. All boroughs are encouraged to commit to and work towards this target alongside the Mayor. Please note that the GLA will also undertake research on how and when we will be able to meet the latest WHO targets for PM_{2.5} and NO₂, which is likely to be published in summer/autumn 2022.
- Ensuring that the case for tackling air pollution is well understood within the council and with residents, to help secure existing resource and monitoring networks.
- When opportunities for providing additional monitoring arise, these should prioritise PM_{2.5} where possible.
- Working in partnership with the GLA and other boroughs and organisations to help maximise limited resources.
- Ensuring Air Quality Action Plans are up to date and include clear measurables and targets so success can be effectively assessed each year.
- Utilising local public health and communications channels to make residents aware of how to receive pollution alerts, and methods to limit their exposure. This will help to fulfil one of the key recommendations from the Coroner in his Prevention of Future Deaths report after the inquest into the death of Ella Adoo-Kissi-Debrah.

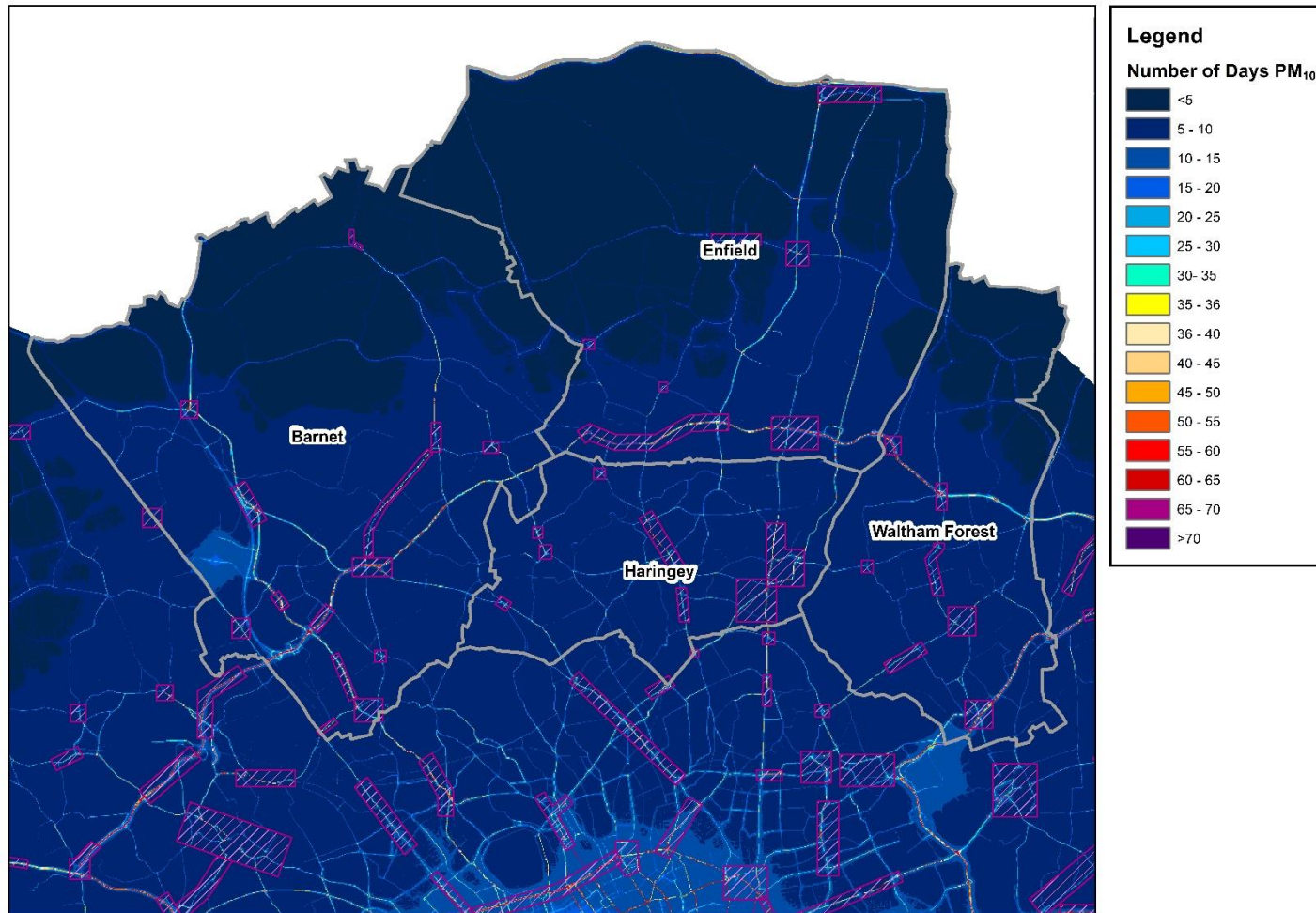
SUB-REGIONAL AIR QUALITY SUMMARIES

North London

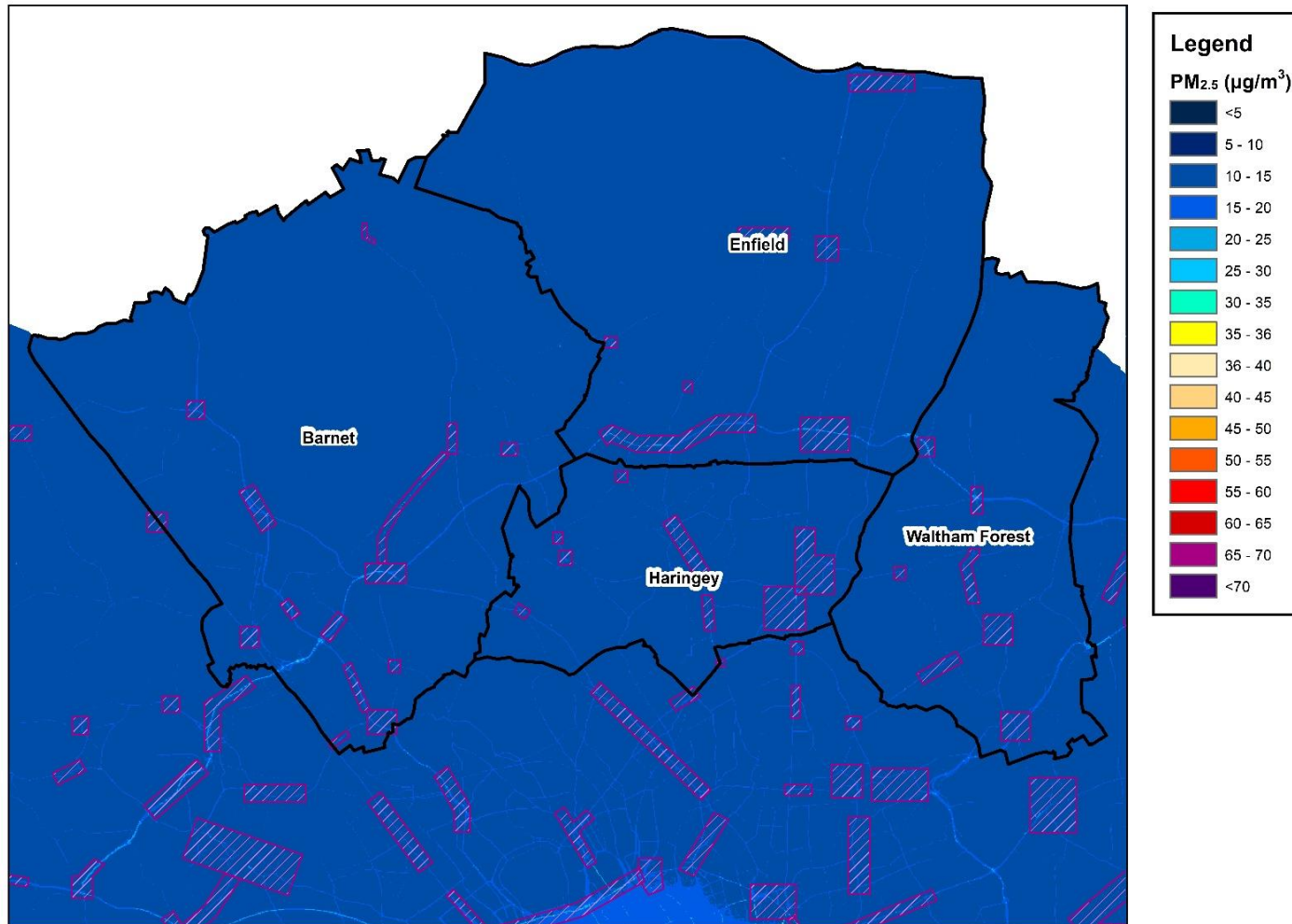
Current air quality focus areas and modelled annual mean NO₂ concentrations (2016) (polygons in this and subsequent figures represent AQFAs)



Current air quality focus areas and modelled number of days exceeding the daily mean PM₁₀ objective (2016)



Current air quality focus areas and modelled annual mean PM_{2.5} concentration (2016)



Source: London Atmospheric Emissions Inventory 2016

Air Quality Summary – North London

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Enfield	2015	Y	NO ₂ annual PM ₁₀ 24h	6	4	1	0	10	0	0	0	0	-			
Barnet	2017	Y	NO ₂ annual PM ₁₀ 24h	14	2	2	0	12	0	0	0	0	-			
Haringey	2019	Y	NO ₂ annual PM ₁₀ 24h	8	2	0	0	16	2	0	-	-	-			-
Waltham Forest	2018	Y	NO ₂ annual PM ₁₀ 24h	13	3	3	1	59	3	0	0	0	-			

Key

AQAP status	Exceedance status (by pollutant)	COVID-19 Impact on NO ₂	Trends
New AQAP <5yrs old	Below objective	- 20+%	Clear Improvement – All sites recorded lower concentrations in 2020 compared to 2014 data, with no exceedances in 2020.
AQAP under review	Above objectives but improved or equal to previous years	- 10-20%	Partial Improvement – Most sites recorded lower concentrations in 2020 compared to 2014 data, however exceedances remain.
AQAP >5yrs old	Above objective at some locations compared with previous years	- <10%	Slight Improvement – Although many sites may show improvement, some sites are recording higher concentrations in 2020 compared to 2014 data.

Key Actions – North London

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Enfield	<p>No changes made to the monitoring network.</p> <p>-</p> <p>Inspections of industrial emissions were interrupted due to the COVID-19 pandemic.</p> <p>-</p> <p>The monitoring data reports an 20% decrease in NO₂ concentrations in 2020 compared to 2019 concentrations.</p>	-	<p>Two LTNS have been implemented in the borough.</p> <p>-</p> <p>Improvements to the A1055 have been completed.</p> <p>-</p> <p>A tree planting programme is in place.</p> <p>-</p> <p>There are now 15 Controlled Parking Zones (CPZs) in the borough.</p>	-	<p>Environmental Health is required to respond to 90% of allocated planning consultations within the 21-day period every year. In 2020, responded to 100% of consultations on time.</p> <p>-</p> <p>To date there have been no applications which will significantly increase NO₂ concentrations in the borough.</p> <p>-</p> <p>There have been several developments which have had alternative ventilation, to allow residents to ventilate their properties without having to open windows.</p>	<p>Developed a Cycle Strategy and Action Plan. One to one training sessions are on offer to all residents over the age of ten who live, work or study in the borough.</p> <p>-</p> <p>Cycle Enfield build begun. The Green Lanes section and parts of Ponders End have been completed. The A1010 South Scheme is complete; the A1010 North Scheme is currently resolving snagging issues, and the Haselbury</p>	<p>School streets implemented in the borough. This closes roads around schools to motor traffic during drop-off and pick-up times Monday – Friday.</p> <p>-</p> <p>The Council has a School Travel Planning Officer who works with schools to develop sustainable travel plans to and from schools.</p> <p>-</p> <p>Schools in the borough engage with STARS accreditation, 26 schools have gold level STARS, 3 have Bronze</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
					- Emissions from construction sites are controlled and air quality is ingrained into site management.	Neighbourhoods Project is now complete. - Residential bike hangers have been installed in several locations including Winchmore Hill and Palmers Green.	and 42 schools are engaged.
Barnet	Existing levels of monitoring maintained. - Continuous monitoring of NO ₂ and PM ₁₀ continued in 2020, however due to the COVID-19 pandemic there were periods of time where diffusion tubes could not be exposed in line with	The Council deployed £15 to replace its fleet with cleaner vehicles, £9m was used to replace HGVs. 100% of refuse fleet are now Euro VI vehicles. All HGVs above 3.5 tonnes are currently Euro VI vehicles.	In 2020, 737 trees were planted in areas that are urban heat islands / areas with poor air quality and near schools. - A regeneration scheme will integrate Hendon Central/near A41, the Burroughs and the Middlesex	-	A total of 14 dust complaints were received in 2020. - 10 planning applications where NRMM condition was applied in 2020. - In 2020, Cleaner Construction for London undertook 20 audits in the borough. Five sites exceeded emission standards, five were non-	At the end of 2020, there were 51.2km of 20mph roads in the borough, an increase of 7.5km on the previous year. - In 2020, 2x 6 dual charge point hubs (7kWh) were installed at Watling Avenue and Lodge Lane Car Parks. -	Due to the COVID-19 pandemic, no anti-idling events were held in 2020. Since schools have reopened, there is potential to hold some this year. - In spring 2020, residents and businesses were consulted on the draft Long-term Transport Strategy.

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>the 2020 Diffusion Tube Monitoring Calendar dates.</p> <p>-</p> <p>Reported a 24% reduction in NO₂ concentrations in 2020.</p>	<p>-</p> <p>Two Safer Urban Driving courses were booked for fleet drivers in 2020, however these were cancelled due to the COVID-19 pandemic.</p> <p>-</p> <p>Completed FORS audit in November 2020, renewing Bronze status for a year.</p>	<p>University HUB to minimise parking and encourage sustainable transport.</p> <p>-</p> <p>In High Barnet, significant public realm improvements have increased pedestrian areas and significantly reduced parking on the A1000, reducing congestion.</p>		<p>compliant before audit but met required emission standards by enacting recommendations made, nine sites were completed, and one site had no NRMM within scope. 15% of sites were unregistered and subsequently engaged.</p> <p>-</p> <p>916 planning applications assessed in 2020. One application was made for biomass boilers – the trend for these has diminished.</p>	<p>In November 2020, the experimental A1000 cycle lane was completing creating 3.2km of cycle lanes.</p>	<p>-</p> <p>In 2020, Barnet was the London borough with the highest number of schools awarded STARS, with the number of Barnet Gold STARS exceeding the total number of Bronze, Silver and Gold STARS in all but one other borough.</p>
Haringey	<p>Two new diffusion tubes were introduced at the High Road co-location study in 2020, to make these triplicate tubes.</p>	<p>The Council has used tracking equipment to monitor usage levels and compare to EVs, which at this</p>	<p>Planting of 373 new trees during the 2020/21 planting season, of which 295 were street trees, 18 in parks, and 60 on</p>	<p>The Council continues to follow rules set by procurement for any freight that falls under their service areas.</p>	<p>In 2020, only one major development with CHPs/Biomass boiler was subject to GLA emissions limits and other restrictions. The same number of developments</p>	<p>The Council has now installed 81 EV charging points, 20 Lamp Column EV points and six standard double socket EV which serve 12 EVs. A</p>	<p>Promotion of airTEXT.</p> <p>-</p> <p>Fortnightly schools bulletin and STARS newsletter to all schools.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>-</p> <p>There was a two week and a one week delay in the diffusion tubes' exposure in April and May 2020 respectively, due to the COVID-19 pandemic.</p> <p>-</p> <p>Diffusion tube location HR31 indicated a potential exceedance of the NO₂ hourly mean AQS objective.</p> <p>-</p> <p>Monitoring data shows an 18% decrease in NO₂ concentrations compared to 2019 levels.</p>	<p>time no EVs on the market deliver on service requirements.</p> <p>-</p> <p>Where vehicles need to be replaced, they will be replaced by Euro 6 emissions standard vehicles, with the ambition to switch to EVs in the next few years.</p>	<p>'Homes for Haringey' sites.</p> <p>-</p> <p>The Council launched 10 new School Streets in April 2020 with 10 more planned before December 2021. Other planned School Streets were delayed due to difficulty of engagement and supply chains issues to deliver cameras but another 19 will be delivered during 2021.</p>	<p>-</p> <p>Seven E-Cargo Bikes are being used for services across the borough's parks.</p>	<p>were subject to installation of Ultra-Low NO_x boilers.</p> <p>-</p> <p>In 2020, 17 sites were audited for NRMM compliance.</p> <p>-</p> <p>Dust Management Plans are required for all major and medium sized developments via planning conditions. In 2020, 35 planning applications were required to submit a Dust Management Plan and register with the Considerate Constructors Scheme.</p>	<p>further 26 source EV points will be installed in the next few months, and there is plans to investigate a further 60 bays in 2020/21.</p> <p>-</p> <p>Agreed to add a £10 increase across all existing parking permit change bands - a surcharge (£80) was added on diesel vehicles and on second and subsequent residential parking permits per household (£50 / vehicle).</p> <p>-</p> <p>The Council offered discounted bikes in 'Try before you bike' scheme with 'Peddle</p>	<p>Anti-Idling campaigns at 7 schools took place in 2020.</p> <p>-</p> <p>Air quality art competition with 9 schools participated.</p> <p>-</p> <p>In 2020, there were no car free days due to social distancing requirements.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
						My Wheels', with which 114 residents purchased a bike at low cost and received cycle training.	
Waltham Forest	<p>Increased diffusion tube monitoring in 2020 (four new sites added).</p> <p>-</p> <p>Trial of low-cost pollution monitors to explore the accuracy and value of these monitors during 2020/21.</p> <p>-</p> <p>Due to the COVID-19 pandemic, there was around a 50% reduction in NO₂ concentrations at Crooked Billet</p>	<p>Waltham Forest Town Hall now has six bays, two for staff and four for public for e-car rental / pool cars.</p>	<p>In 2020, 8 school streets went live and further schemes are planned for 2021.</p> <p>-</p> <p>The Council's Leytonstone BLEN project, to commence in 2020/2021, will include an investigation of virtual loading bays in Leytonstone.</p> <p>-</p> <p>Implementation of the Coppermill</p>	<p>The Council's Business Low Emission Neighbourhood (BLEN) project is due to be delivered in 2020/21 which will include an investigation of virtual loading bays in Leytonstone.</p> <p>-</p> <p>In 2020, the Zero Emission Delivery Service saved an estimated 23 tonnes CO₂</p>	<p>From 1st September 2020, NRMM on all sites within Greater London will be required to meet Stage IIIB of Directive 97/68/EC as a minimum.</p> <p>-</p> <p>In 2020 the Council implemented 17 SALIX retrofitting projects, with an expected CO₂ savings of 173 tonnes. The projects were LED lighting upgrades, solar panel installations, boiler upgrades and oil boiler replacements.</p> <p>-</p>	<p>In 2020, the majority of anti-idling events were cancelled due to the COVID-19 pandemic.</p> <p>-</p> <p>In 2020 the Council installed 47 public EV charging sockets. The borough now has 120 lamp column sockets and 82 fast charging dual sockets.</p> <p>-</p> <p>All resident permits are charged based on Engine size/CO₂ emissions (g/km).</p> <p>-</p>	<p>Public Health team working collaboratively on several projects, including The School Super Zone Pilot, Cleaner Air Hospital Project and deploying Green Screens.</p> <p>-</p> <p>There are now 57 schools in the borough with TfL STARS accredited travel plans including 25 Gold standard schools.</p> <p>-</p> <p>Plan to identify the location of the new 'superzone' school</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	automatic monitoring station.		<p>Liveable Neighbourhood project in 2020/21.</p> <p>-</p> <p>Proposed to develop and deliver an enhanced campaign to promote smoke control area requirements.</p>	emissions, delivered 37,893 packages and travelled over 69,362 miles.	Waltham Forest are part of the pan London NRMM project. In 2020/21, 17 sites were audited with 15 sites compliant, and two sites non-compliant.	The Council has adopted an electric vehicle charging point strategy setting out measures and targets to support electric vehicle recharging through to 2025.	<p>project in later 2021 and set out clear objectives for the project.</p> <p>-</p> <p>The Council promoted the Engines Off campaign via press releases and social media as part of our clean air day communications.</p> <p>-</p> <p>In 2021/22 the Council will revamp the air quality section on its website and explore options for improved communications to residents about air quality.</p>

Summary – North London

AQ monitoring and other core statutory duties

All boroughs have declared whole borough AQMAs for exceedances of the annual mean NO₂ and daily mean PM₁₀ objectives. There has been an improvement in measured NO₂ concentrations, with all boroughs seeing a decrease in the number of exceedances of the NO₂ annual mean objective. Haringey and Waltham Forest continue to demonstrate exceedances of the NO₂ annual mean objective but are compliant with the NO₂ hourly objective, and with annual and daily PM₁₀ objectives. Enfield and Barnet are compliant with all objectives, though have more limited monitoring regimes. Enfield are due to update their AQAP as this was published in 2015.

Enfield is also the only North London borough currently monitoring SO₂, whereas Waltham Forest is the only North London borough currently monitoring PM_{2.5}, with the additional monitor installed at an existing urban background monitoring location in 2018. Haringey has historically had PM_{2.5} monitoring carried out at an AURN site, however in January 2016 this was re-located elsewhere in the borough, though there is still Ozone monitoring at the site. Haringey does not currently carry out PM₁₀ monitoring, although the borough-wide AQMA is declared for the daily mean PM₁₀ objective. All boroughs could consider following Waltham Forest in monitoring PM_{2.5} to ensure the objective is achieved and to assess the effectiveness of their PM-targeted action plan measures.

COVID-19 has impacted the NO₂ concentrations compared to 2019 levels, due to the lockdowns which were imposed as a result. The biggest decrease was seen in Waltham Forest, where concentrations at Crooked Billet automatic monitoring station showed a 50% decrease, followed by Barnet with a 24% decrease. Concentrations also decreased in Enfield and Haringey by around 20%.

Overall, the monitoring campaigns have been at least retained, and in some cases expanded in North London, except for Barnet, who reported data for three fewer sites. The monitoring remains primarily focused at roadside locations. Haringey expanded their monitoring regime in 2020, introducing a triplicate co-location study, and Waltham Forest introduced four additional monitoring locations. Enfield's monitoring locations have remained unchanged.

Borough Fleet Actions

Barnet completed their FORS audit in November 2020, renewing their Bronze status for another year, and the Council has also replaced 47 of their Euro V refuse collection vehicles with Euro VI vehicles. Haringey Council is replacing their fleet vehicles with Euro VI emission standard vehicles, with the ambition to switch to EVs in the next few years. Waltham Forest Town Hall now has six parking bays, two of which are for staff and four for public use, for e-car rental / pool cars. Enfield Council do not currently comment on their fleet improvement plans.

Localised Solutions

Barnet and Haringey continue with their tree planting schemes, with 737 and 373 trees planted in 2020/21, respectively. Two new LTNs have been implemented in Enfield, and the scheduled improvements to the A1055 have been completed. Waltham Forest has implemented many local

measures including the School Street scheme, in which eight schools went live in 2020 and further schools are planned for 2021. The Council has also implemented the Coppermill Liveable Neighbourhood project and plan to deliver Business LEN projects in 2020/21, which include an investigation of virtual loading bays in Leytonstone. Other local measures include 15 CPZs in Enfield, and a regeneration scheme in Barnet which aims to better integrate Hendon Central, the Burroughs and the Middlesex University Hub to minimise parking and encourage sustainable transport.

Delivery servicing and freight

Barnet and Enfield continue to provide limited information on local actions dealing with delivery servicing and freight. Haringey continue to follow procurement rules for any freight that falls under their service area including a requirement for suppliers with large fleets to have attained Bronze FORS accreditation, whereas Waltham Forest continue to operate the Zero Emission Delivery Service, which in 2020 has been estimated to have saved 23 tonnes CO₂ emissions, delivered 37,893 packages and travelled over 69,362 miles. In Haringey seven e-cargo bikes are being used for services across the borough's parks.

Emissions from development and buildings

As of September 1st 2020, NRMM on all sites within Greater London was required to meet Stage IIIB of Directive 97/68/EC as a minimum. All boroughs have indicated that new approved planning applications are required to meet the Mayor's Air Quality Neutral, CHP, and NRMM requirements. Barnet received 916 planning applications in 2020, with only one application for biomass boilers among these. In Haringey, only one major development with CHPs/Biomass boiler was subject to GLA limits and other restrictions on emissions, whereas in Enfield emissions from construction sites are proactively controlled. Enfield also reported that they received no applications which are anticipated to significantly increase NO₂ concentrations within the borough. Waltham Forest implemented 17 SALIX retrofitting and upgrading projects, with an expected CO₂ savings of 173 tonnes. The projects were LED lighting upgrades, solar panel installations, boiler upgrades and oil boiler replacements.

Cleaner transport

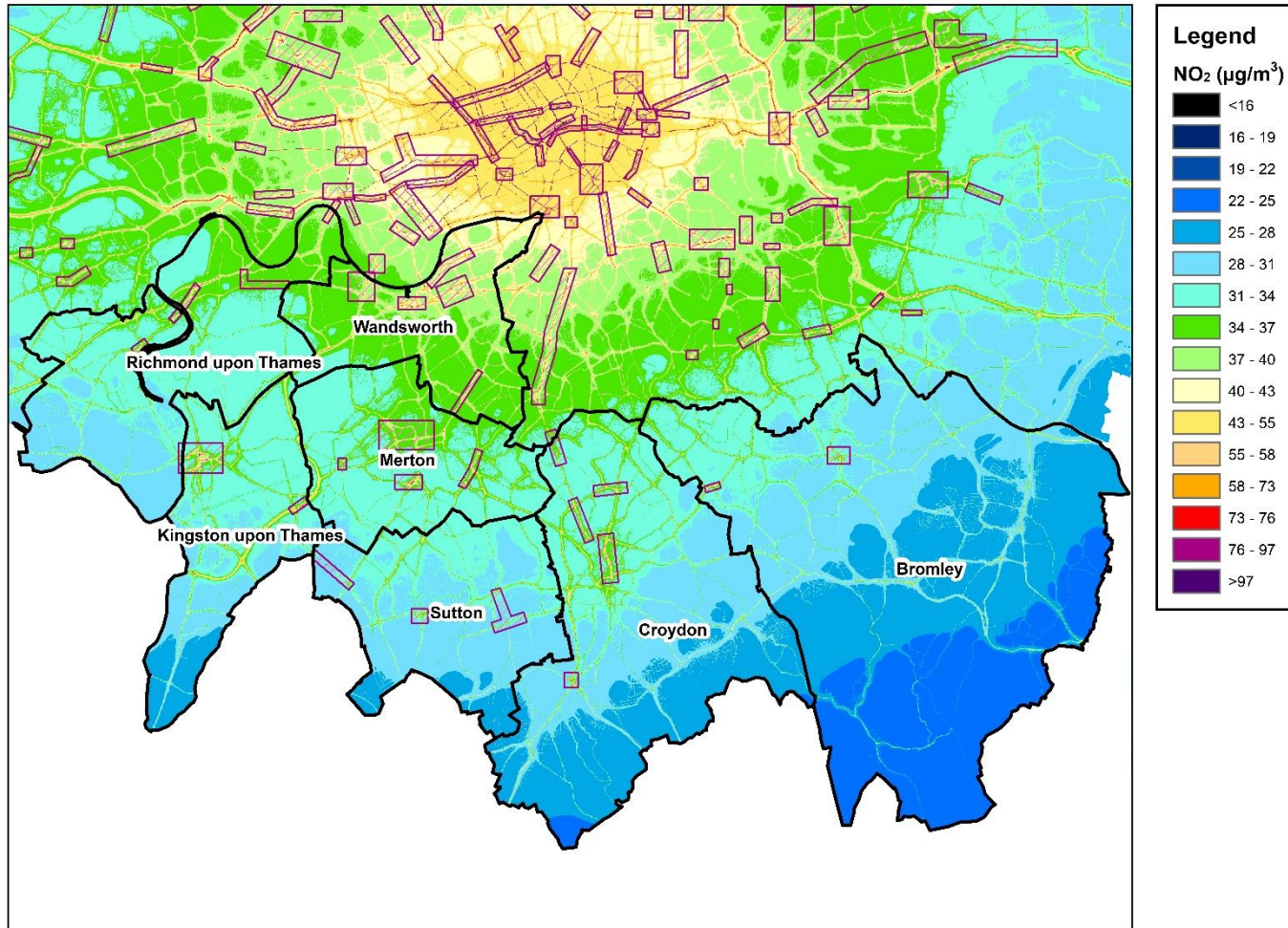
There continues to be a focus on increasing the provision of services and infrastructure for cycling and EV charging in North London, through several local actions. Cycle related measures within North London include: a Cycle Strategy and Action Plan in Enfield offering one to one training sessions to all residents over the age of ten who live, work or study in the borough; Barnet completed their experimental A1000 cycle lane, creating 3.2km of cycle lanes; and in Haringey the Council offered discounted bikes in the 'Try before you bike' scheme with Peddle My Wheels. Cycle Enfield has also begun, and the Green Lanes and Ponders End cycle routes have been completed, with many more cycle routes also being constructed around the borough. With respect to EV infrastructure within North London, Barnet installed 2x 6 dual charge point hubs (7kWh) at Watling Avenue and Lodge Lane Car Parks, Haringey has now installed 81 EV charging points, including 20 Lamp Column and six standard double socket EV points (with more planned for the future) and Waltham Forest installed 47 public EV charging sockets, taking their total in the borough to 120 Lamp Column sockets and 82 fast charging dual sockets.

Public health and awareness raising

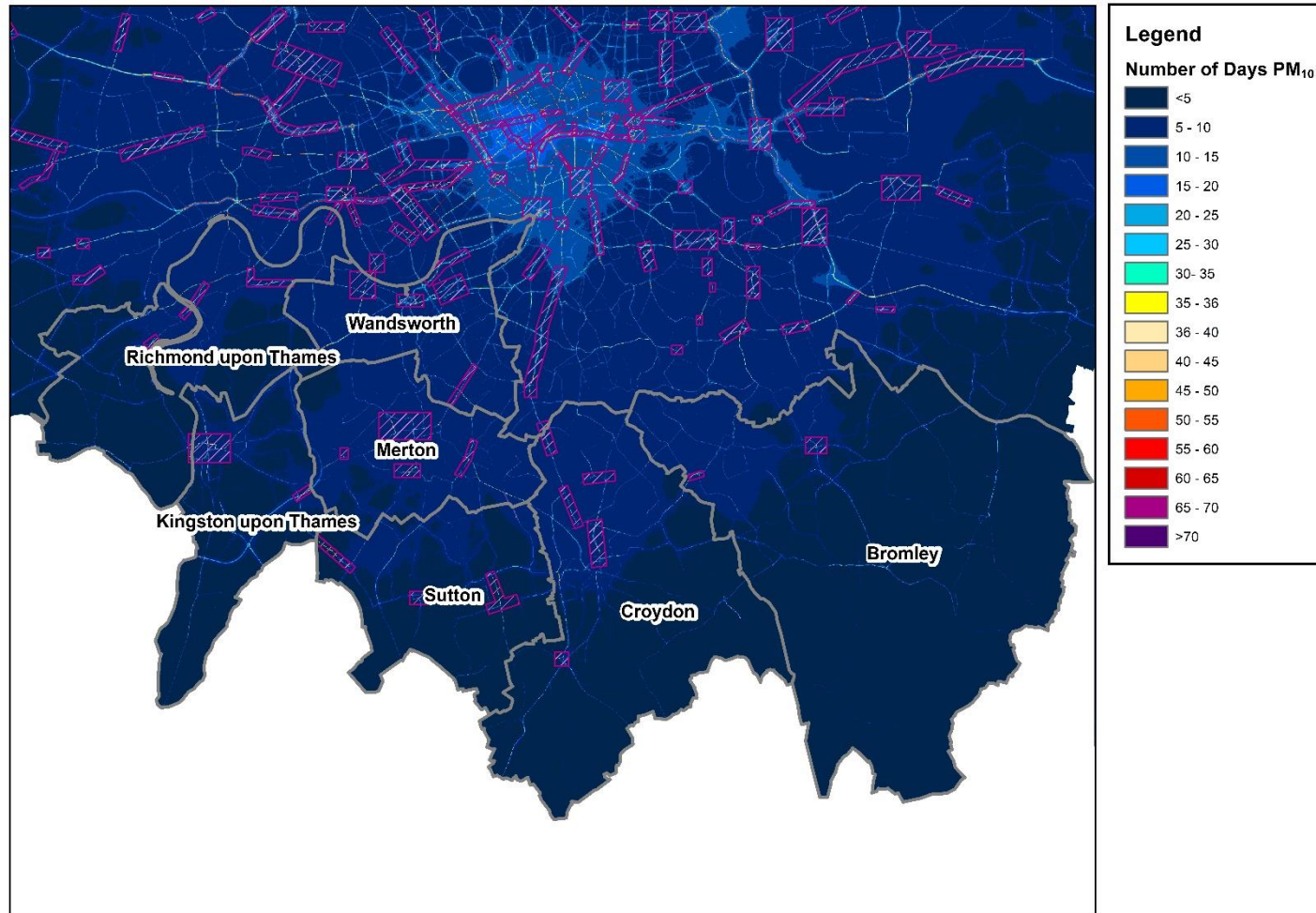
Boroughs in North London have focused heavily on implementing measures that improve air quality around local schools, including host of school streets across North London . Enfield, Barnet and Waltham Forest engage in the TfL STARS accreditation programme, with Barnet being the London borough with the highest number of schools awarded STARS. Further actions carried out by the boroughs include: an air quality art competition in Haringey in which nine schools participated; a planned revamp in Waltham Forest on their air quality section on its website; and Enfield have a School Travel Planning Officer who works with schools to develop sustainable travel plans to and from schools. All boroughs promote the *air*TEXT scheme, though some planned measures in Haringey and Barnet were delayed due to the COVID-19 pandemic.

South London

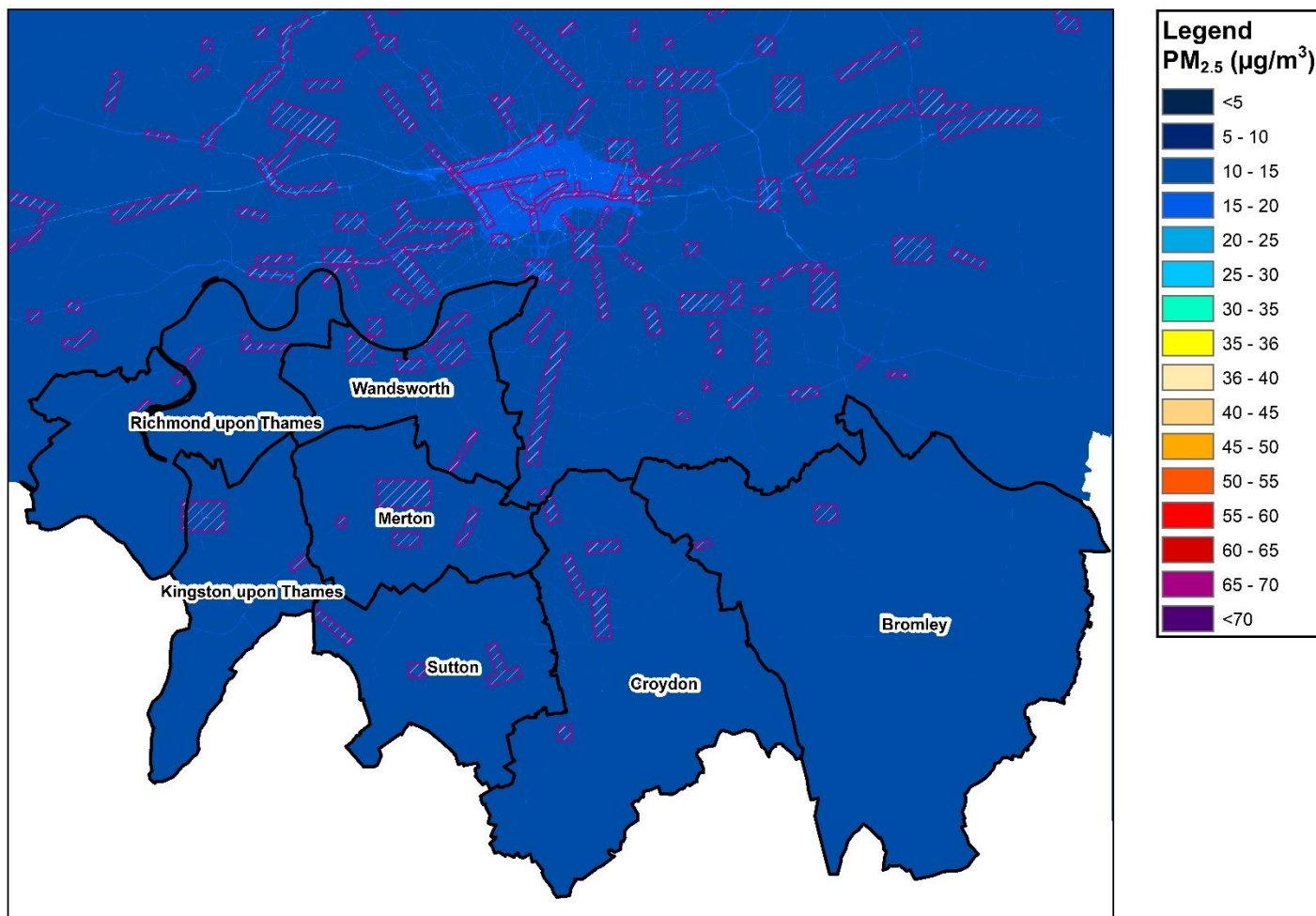
Current air quality focus areas and modelled annual mean NO₂ concentrations (2016)



Current air quality focus areas and modelled number of days exceeding the daily mean PM₁₀ objective (2016)



Current air quality focus areas and modelled annual mean PM_{2.5} concentration (2016)



Source: London Atmospheric Emission Inventory 2016

Air Quality Summary – South London

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared for		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Bromley	2020	N	NO ₂ annual	2	1	1	1	10	0	0	0	0	0			
Croydon	2017	Y	NO ₂ annual / 1hr	5	3	1	1	30	3	0	-*	-*	0			-*
Kingston	2017	Y	NO ₂ annual PM ₁₀ 24h	2	3	3	0	40	3	0	0	0	-			
Merton	2018	Y	NO ₂ annual PM ₁₀ 24h	3	1	1	0	50	4	0	0	0	-			
Richmond	2020	Y	NO ₂ annual PM ₁₀ annual /24h	4	2	3	1	64	4	0	0	0	0			
Sutton	2019	Y	NO ₂ annual PM ₁₀ 24h	3	4	4	1	26	0	0	0	0	0			

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared for		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Wandsworth	2016	Y	NO ₂ annual PM ₁₀ 24h	5	7	5	0	42	5	0	0	0	-			

*Power issues at CR9 resulted in 9% data capture over the year, an insufficient level to be annualised. Therefore, the data was not used. No data for trend analysis.

Key

AQAP status	Exceedance status (by pollutant)	COVID-19 Impact on NO ₂	Trends
New AQAP <5yrs old	Below objective	- 20+%	Clear Improvement – All sites recorded lower concentrations in 2020 compared to 2014 data, with no exceedances in 2020.
AQAP under review	Above objectives but improved or equal to previous years	- 10-20%	Partial Improvement – Most sites recorded lower concentrations in 2020 compared to 2014 data, however exceedances remain.
AQAP >5yrs old	Above objective at more locations compared with previous years	- <10%	Slight Improvement – Although many sites may show improvement, some sites are recording higher concentrations in 2020 compared to 2014 data.

Key Actions – South London

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Bromley	<p>Maintenance of existing monitoring network, plus the re-commission of a PM_{2.5} analyser, resulting in a 56% data capture for the year.</p> <p>-</p> <p>Diffusion tube data capture was impacted by COVID-19, with a 65.1% data capture for the year. All data were therefore annualised.</p> <p>-</p> <p>Concentrations of NO₂ have been steadily decreasing since 2009, along with other pollutants, this trend continued into the pandemic.</p>	<p>Non-ULEZ compliant vans will be withdrawn from service by 2021</p> <p>-</p> <p>In-house driving training provided to Council officers.</p> <p>-</p> <p>The pool car fleet will be hybrid by 2019/20 and non-ULEZ compliant vans will be withdrawn from service by 2021.</p>	<p>Air Quality Toolkit developed by Carbon Management team to appraise environmental and health concerns.</p>	<p>Collaboration with TfL on the South London Freight Quality Partnership. Noise impacts the key concern at present, but detailed consideration of air quality will follow.</p>	<p>Ongoing Enforcement of NRMM compliance monitoring within the borough.</p> <p>-</p> <p>Installation of ultra-low NOx gas boilers encouraged in line with the London Plan policy.</p> <p>-</p> <p>All major developments met GLA Air Quality Neutral standards as a minimum.</p> <p>-</p> <p>Ongoing work retrofitting and replacing old boiler and promoting energy efficiency projects in Council buildings.</p>	<p>Air Quality Toolkit developed by Carbon Management team to appraise environmental and health concerns.</p> <p>-</p> <p>Staff Lease Car share scheme under consideration.</p> <p>-</p> <p>Council officers given powers to enforce idling restrictions, as part of the MAQF anti-idling campaign.</p> <p>-</p> <p>Ongoing cycle to work scheme in place, including 'bikeability training'.</p>	<p>Ongoing Promotion of airTEXT and TfL's STARS schools.</p> <p>-</p> <p>Promotion of initiatives outlined in Bromley LIP, 2017 such as Bike Week, Walk to School Weeks, EU mobility week and the London "Good going" campaign.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Croydon	<p>Number of continuous and diffusion tube monitors unchanged for 2020.</p> <p>-</p> <p>Monitoring at Queens square was completed, and the project extended to cover Kindred House.</p> <p>-</p> <p>Croydon Business LEN project was approved by the GLA and implantation is underway.</p> <p>-</p> <p>COVID-19 affected data capture from April to June, resulting in a 75% data capture for the year across a majority of sites, and some requiring annualisation.</p>	<p>Redevelopment of Stubbs Mead will provide the ECVPs (Electric Vehicle Charging Points) and then appropriate fleet and hired fleet can be precured.</p> <p>-</p> <p>Ongoing Smarter Driver Training.</p>	<p>A successful bid secured £13,000 from the Mayor of London. New commitment to plant 3,500 trees by 2023, including 60 new planting bays alongside roads in the borough's neighbourhoods.</p> <p>-</p> <p>Following an unsuccessful bid for funding from MAQF, funding is being sought from other sources to support the Ecostars for Private Hire Vehicles (PHVs) scheme.</p> <p>-</p> <p>Croydon Business LEN project was</p>	<p>Work on-going to implement sustainable logistical measures with the procurement and commissioning teams.</p> <p>-</p> <p>The Croydon Sutton Electric Freight scheme 2017-2020 is now completed. The trial scheme had over 40 business enquiries.</p>	<p>274 Construction Logistics Plans were reviewed of which 228 were approved. 88 applications were reviewed for CEMPs in 2020.</p> <p>-</p> <p>185 ultra-low NO_x boilers were installed under planning condition.</p> <p>-</p> <p>The London Borough Croydon achieved a Total Compliance status of 73% (Total compliance status is Compliant and Self-Compliant combined).</p> <p>-</p> <p>Half the borough has been designated a smoke control zone, with options under</p>	<p>Increase of public charging points to 132, 43 of which are residential.</p> <p>-</p> <p>Increased registered users to the car-pool scheme by 1,423.</p> <p>-</p> <p>There are plans to install 40 Electric Vehicle (EV) charging bollards through the GO Ultra Low City Scheme, to enable uptake of EVs.</p> <p>-</p> <p>The Croydon Sutton Electric Freight scheme 2017-2020 is now completed.</p> <p>-</p>	<p>Continued engagement with <i>air</i>TEXT and the TfL STARS programme.</p> <p>-</p> <p>11 school streets have been implemented as of January 2020 as part of 'School Streets' initiative.</p> <p>-</p> <p>Six training sessions were held for parent volunteers in 2019/2020 schools, as part of the Pan London Anti Idling project.</p> <p>-</p> <p>A trial school audit took place at Winterbourne Girls in 2020.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>-</p> <p>Diffusion tube monitoring was extended to include all primary schools in the borough, though data were not reported.</p> <p>-</p> <p>The number of sites which exceeded the annual NO₂ objective was three in 2020 compared to seven in 2019. Croydon did not report any PM₁₀ data for 2020 due to insufficient data capture. These trends are in part attributed to COVID-19.</p>		<p>approved by the GLA and implantation is underway.</p>		<p>consideration to extend the area to the entire borough.</p>	<p>One more cargo trike has been added to those available to local businesses, two in total are available.</p> <p>-</p> <p>25 secure, on-street cycle hangers were installed by Cyclehoop, funded by TfL and LBC Section 106, and a new contract has been let to Cyclehoop for a further 50 secure on street cycle hangars.</p>	
Kingston	<p>Continued maintenance of monitoring network including two 'hyperlocal' air quality studies, focusing on the</p>	<p>General policy of using alternatively fuelled vehicles.</p> <p>-</p>	<p>540 semi-mature trees planted during 2020/21 on highways, verges and within parks.</p>	<p>The Council is looking to improve freight access, loading and</p>	<p>The four outstanding Local Authority cycle hangars were installed in 2020, bringing the</p>	<p>During 2020, the Idling Action project team produced web-based workshops.</p>	

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>effect of cycle lane construction and the impact of 20mph speed limit reductions.</p> <p>-</p> <p>COVID-19 resulted in no diffusion tubes being placed in May 2020. Data capture was at least 75% at all diffusion sites, so no annualisation was required.</p> <p>-</p> <p>Although the specific percentage was not quantified, it was noted that 2020 was the best year in terms of reductions of NO₂ and other pollutants.</p>	<p>Zipcar provides 12 vehicles and 10 bays for car sharing.</p>	<p>The Council remains on track to hit its target of planting 2000 new trees by 2022.</p> <p>-</p> <p>Temporary cycle lanes, including Eden Street, Fairfield North and Kingston Bridge were delivered as part of London Streetspace COVID response.</p> <p>-</p> <p>Footway widening in town centres took place as part of the London Streetspace response.</p> <p>-</p> <p>One Public Estate funding bid</p>	<p>servicing arrangements.</p> <p>-</p> <p>Started working with Kingston's Transition to a Green Economy group on the potential for e-cargo bikes to be used by Kingston businesses through Try Before You Bike contract with Peddle My Wheels.</p>	<p>total number to 60 hangers.</p> <p>-</p> <p>38 cycle stands were installed as part of the Go Cycle programme, cycle parking at the foot of Kingston Bridge was increased to 104 spaces. In December TfL awarded funding for the installation of additional cycle parking.</p> <p>-</p> <p>All TfL buses travelling within the borough are now at least Euro VI compliant.</p> <p>-</p> <p>EV charging infrastructure expanded to include a further 11 Source London sites, 17 charging points (dual and single), serving 26</p>	<p>-</p> <p>In 2020 the Council began the process of bidding for funding for 'Internet of Things' related projects under the South London Partnership's Innovate project.</p>	

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
			<p>submitted for Tolworth Station.</p> <p>-</p> <p>Funding secured for a feasibility study into ULEZ and other air quality traffic management measures to be undertaken. The study will be commissioned in 2021.</p>		<p>dedicated bays were installed). Four Rapid charging points, facilitated by TfL, were installed in late 2020.</p> <p>-</p> <p>Started working with Kingston's Transition to a Green Economy group on the potential for e-cargo bikes to be used by Kingston businesses through 'Try Before You Bike' contract with Peddle My wheels.</p>		
Merton	<p>A mapping system refresh is underway.</p> <p>-</p> <p>Following a 12-month monitoring programme, Nine school sites were added to the diffusion tube network in January.</p> <p>-</p>	<p>Seeking funding to support a fully carbon neutral fleet of vehicles.</p> <p>-</p> <p>Business Mileage scheme to encourage Council staff to cycle.</p> <p>-</p>	<p>Cycle Quiet-way completed between Clapham Common and Wimbledon.</p> <p>-</p> <p>Continued engagement with Pan London Idling Action project</p> <p>-</p>	-	<p>Improving air quality and mitigation in developments will be embedded in the new Local Plan and supporting (emerging) Air Quality Supplementary Planning Document (SPD), which is</p>	<p>Promotion of the use of cleaner vehicles.</p> <p>-</p> <p>The Cycling section of Merton's 'Local Improvement Plan 3' continued to be carried out. 20 secure cycle storage</p>	<p>A dedicated Anti Idling webpage was created.</p> <p>-</p> <p>Participation in regional campaigns such as National Clean Air Day.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>A Community Volunteer Coordinator has been appointed from the Environmental Sub-Group (ESG) to liaise with the Council and coordinate all community diffusion tube monitoring.</p> <p>-</p> <p>Funding was secured to complete borough specific air quality modelling in partnership with faculty at Imperial College London.</p> <p>-</p> <p>COVID-19 resulted in monitoring being suspended in May. The Council determined approximately a 20% decrease in monitored NO₂ as a result of the pandemic.</p>	<p>Brompton bicycle loan scheme for staff to travel across London.</p>	<p>Implementation of Parklets outside schools, as part of Merton's HSE MAQF funding, scheduled for Summer 2021.</p>		<p>expected to be adopted by the Council in summer 2021.</p> <p>-</p> <p>In November 2020, Council approved Merton's Climate Strategy and Action Plan, which sets a framework to achieve a net-zero carbon borough for 2050 and a net-zero carbon Council by 2030.</p> <p>-</p> <p>Continued leading of the NRMM program. This included delivering training events to industry stakeholders.</p>	<p>units were installed, and 20 cycle shelters were installed.</p> <p>-</p> <p>The Council is working to provide infrastructure such as rapid charging points to encourage electric vehicles.</p> <p>-</p> <p>After the introduction of the Diesel parking levy in 2017, which was reviewed in 2019, consultation ongoing regarding a move to mirroring ULEZ scheme in Merton.</p>	<p>The Environmental Sub Group was created to help deliver the AQAP along with an internal steering group.</p> <p>-</p> <p>Expansion of the SNAP project (School Neighbourhood Approach Pilot, formerly the Superzones project).</p> <p>-</p> <p>Merton Climate Action Group has been set up as a joint Council community initiative to support community-led carbon reduction projects.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Richmond	<p>Monitoring was maintained in the borough despite COVID-19. Data capture was above 75% at all sites, with the exception of site 53. This site was therefore annualised.</p> <p>-</p> <p>A total of 220 additional NO₂ diffusion tubes were installed across areas of local concern by the Council on external projects (data not reported).</p> <p>-</p> <p>Won a joint bid for the Internet of Things. Plans to install Vivacity monitors and 40 real-time Breathe London monitors to assess air</p>	<p>The Council fleet now consists of 44 Euro VI, seven Euro V, three Euro IV and four Euro III.</p> <p>-</p> <p>Ongoing corporate car club member, offering parking for essential car users.</p> <p>-</p> <p>Sustainable transport for staff encouraged – good cycle facilities including showers and storage maintained</p>	<p>Installation of 20 mph speed limit in over 90 % of all LBRUT roads.</p> <p>-</p> <p>Hampton Court Road had new interim cycle facilities built and 20mph was introduced along part of this corridor</p> <p>-</p> <p>A total of 370 public charging points are now installed including 70 new lamp column chargers.</p> <p>-</p> <p>Target to make all 14 School streets permanent.</p> <p>-</p>	<p>E-cargo bike deliveries trialled through Clean Air Villages 3 (CAV3) for Richmond and East Twickenham town centres.</p> <p>-</p> <p>Delivered an innovative online website supported by LBRUT to help high streets recover from COVID in a green and clean way with clean e-cargo bike next day deliveries. Trialled successfully in north of the borough with plans to expand to whole borough in 2021.</p>	<p>Continued leading of the NRMM program with Merton.</p> <p>-</p> <p>Aim to impose NRMM conditions on 100% of all major construction sites-</p> <p>Inspection and enforcement of requirements at Part B installations.</p> <p>-</p> <p>£550k funding secured from The Department for Business, Energy & Industrial Strategy (BEIS) in October 2020 through the Green Homes Grant Local Authority Delivery Scheme to retrofit homes in the borough.</p>	<p>Working independently and with London Idling action to raise awareness of engine idling.</p> <p>-</p> <p>Euro VI/EVs are required on new Council contracts</p> <p>-</p> <p>In 2020, there were 73 car club bays in operation.</p> <p>-</p> <p>Published the Active Travel Strategy, to encourage walking and cycling in the borough.</p> <p>-</p> <p>Installed 6 bike hangars in</p>	<p>Promotion of initiative such as such as idling action awareness raising, Clean Air Day, Car Free day, Bike week, walk to school week, wood burning, <i>airTEXT</i> and more.</p> <p>-</p> <p>Engagement with schools on TfL STARS school programme.</p> <p>-</p> <p>A single Transport and Air Quality Committee was created to integrate transport and Air Quality in all decision making.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>quality borough wide by late 2021.</p> <p>-</p> <p>The Council note a reduction compared to 2019 of between 37% and 24% in recorded NO₂ concentrations during the spring lockdown.</p>		<p>Bonfires have been banned on council allotments in the borough.</p>			<p>Richmond, providing space for 36 bikes, consulted an additional 24 sites.</p>	
Sutton	<p>Maintenance of existing monitoring network. The Industrial site at Beddington Lane was relocated to Beddington Village in October 2020.</p> <p>-</p> <p>The COVID-19 pandemic resulted in the loss of some data due to inability to change over diffusion tubes. Due to this, 15 sites required annualisation.</p>	<p>Procurement policies require contractors to use vehicles with lower emissions.</p>	<p>Involvement in the Anti-idling project funded by the MAQF.</p> <p>-</p> <p>In 2020, a greater number of trees than were felled were planted in the borough.</p>	<p>Encouraging existing contractors providing Council services to be members of the FORS and obtain Gold accreditation.</p> <p>-</p> <p>The Croydon Sutton Electric Freight project 2017-2020, as part of London's Go Ultra Low City</p>	<p>All industrial processes are inspected in accordance with Environmental Permitting regulations.</p> <p>-</p> <p>All developments are to be "Air Quality Neutral" as per GLA guidance.</p> <p>-</p> <p>Dust mitigation measures are required in line with the GLA's</p>	<p>Engagement with Streetspace for London scheme</p> <p>-</p> <p>CO₂ based charging structure implemented in existing CPZs provided cheaper permits for lower emitting vehicles.</p>	<p>During 2020, borough residents subscribing to <i>air</i>TEXT increased by 11 to 183.</p> <p>-</p> <p>Continued engagement with STARS school initiative.</p> <p>-</p> <p>The idling project team produced web-based workshops, with</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	- No detailed analyses on pollutant concentrations were conducted. However, evidence indicated a reduction of pollution concentrations in line with previous trends.			Scheme, is now complete. The Council has leased four electric vans, the use of which is being monitored.	SPG for larger developments. - The first eight home transformations of the Sutton Housing Partnership completed.		information and links to external sources to highlight the public health impacts of air pollution, these were promoted to schools in the borough.
Wandsworth	In 2020, 10 new locations have been added to the diffusion tube network. - From July 2020, a citizen science project was set up with Tooting Healthy Streets community to monitor NO ₂ . - COVID-19 resulted in delays with data ratification. However, data capture was above	To use petrol/hybrid/electric vehicles for replacement of Council fleet where possible. Current target of ULEZ compliance of all vehicles by 2021 including telematics. - Plans approved to replaced existing fleet with lower emission vehicles. -	Tooting, Clapham Junction and Putney town centre action plans to minimise congestion. - Temporary widening of pavements and the additional of cycle lanes and closed streets. - As part of the Clean Air Villages 3 project, 14 new	Delivery restrictions in Putney High St and working to also reduce congestion in other areas. - Low Emissions Logistics Project, which involved working with local businesses to promote the use of cycling public transport and	Installation of ultra-low NO _x boilers in Council buildings. - Installation of energy saving measures in Council Buildings - Joint project on the London Low Emission Construction Partnership through MAQF. -	Promotion of a car free day in Tooting Town centre and Clapham Junction. - 9 electric cargo bikes were supplied to businesses, charities and council teams. - Expansion of EV charging point network. On track to meet current target of delivering nearly	Online Anti-idling campaigns. - An interactive air quality theatre show performed for children at primary schools. - Engagement with STARS school programme. - Promote <i>air</i> TEXT.

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>75% at all sites, therefore annualisation was not required.</p> <p>-</p> <p>A 25-26% decrease in NO₂ found when comparing March-April 2019 to 2020 at continuous and diffusion tube monitoring locations.</p>	<p>Highest take-up rate of car club membership in the country with more than 31,000 registered members.</p>	<p>Clean Air Routes were developed.</p> <p>-</p> <p>Parks and Open Spaces team have planted over 1,200 trees in the last two winters.</p> <p>-</p> <p>Installation of green screens at three primary schools to reduce children's exposure to air pollution in their playgrounds.</p>	<p>walking for staff commutes.</p> <p>-</p> <p>Appointed a "health streets" champion to help reduce street clutter.</p>	<p>A new Supplementary Planning Document (SPD) adopted that includes air quality obligations for developers.</p>	<p>900 on-street charging points.</p> <p>-</p> <p>Consultation on the ULEZ plans for Greater London.</p> <p>-</p> <p>Increased provision of cycle infrastructure.</p>	

Summary – South London

AQ monitoring and other core statutory duties

All the boroughs in South London have declared borough-wide AQMAs, with the exception of Bromley, where the AQMA is declared only in the north-west of the borough. Since the original declarations, Wandsworth and Croydon have amended their AQMAs to incorporate exceedances of the hourly mean objective for NO₂. Kingston, Merton, Richmond, Sutton and Wandsworth have incorporated the daily mean objective for PM₁₀ and Richmond the annual mean objective for PM₁₀. The number of focus areas has stayed consistent in all boroughs.

All boroughs in South London monitored exceedances of the annual mean NO₂ objective, with the exception of Bromley and Sutton, where no exceedances were recorded post distance correction for relevant exposure. There were no reported exceedances of the hourly mean NO₂ objective within any of the boroughs in 2020, though one site, in Richmond, was found to exceed 60µg/m³, therefore indicating a likely exceedance of the hourly mean objective at this location. There were also no reported exceedances of annual or daily mean PM₁₀ objectives, or of the annual mean PM_{2.5} objective in any of the South London boroughs in 2020.

Long term, all South London boroughs have been able to demonstrate improvement in the number of sites exceeding the NO₂ annual mean objective. All boroughs have also shown an improvement towards meeting PM₁₀ objectives within the last seven years. There were four functional PM_{2.5} automatic monitoring sites in South London in 2020, in the boroughs of Bromley, Croydon, Richmond and Sutton. The Richmond site is classified as a suburban site, the Croydon site an urban background, the Sutton site as industrial (though this was re-located to a roadside site in 2020), and the Bromley site is roadside. In Bromley, the PM_{2.5} monitor was re-commissioned in 2020, and data is available from mid-April 2020 onwards.

The COVID-19 pandemic inevitably caused disruption to air quality monitoring across the boroughs. Lockdowns resulted in some boroughs being unable to change their diffusion tubes at various times throughout the year, most notably in the initial Spring lockdown. In Croydon, monitoring was disrupted from April to June. In Kingston, no tubes were deployed in May. Nonetheless, all boroughs had sufficient data capture to include results in their ASR, though annualisation was required in Bromley, Croydon, Sutton and Richmond. As previously mentioned, all boroughs have noted a trend of decreasing concentrations which continued into the pandemic. For those that quantified the change, a 20-30% drop in annual mean NO₂ concentrations was noted between 2019 and 2020. This is attributed generally to a reduction in road traffic and emissions due to the pandemic.

Most AQAPs for South London boroughs are up to date, with Bromley and Richmond's having been published in 2020. Wandsworth is currently updating their AQAP. Bromley, Croydon, Richmond, Merton, Kingston maintained existing levels of monitoring, whilst Wandsworth made changes to their monitoring network, increasing their passive monitoring network with 10 new locations introduced from 2020 onwards. Sutton reduced the number of diffusion tubes in their network. All boroughs could consider reviewing their monitoring locations again in 2021 to ensure they are still in line with the AQFAs.

Borough fleet actions

Measures applied by South London boroughs for promoting fleet improvements generally involve ensuring vehicles are compliant with ULEZ emission standards, introducing and using alternatively fuelled vehicles within the borough's own fleet, improving EV charging infrastructure and controlling vehicle emissions via procurement. In-house driver education is offered for Bromley's employees to maximise fuel efficiency and minimise emissions and costs. Merton is seeking funding to support a fully carbon neutral fleet of vehicles and offer a bicycle loan scheme for staff. Sutton has implemented stricter criteria for their procurement code to reduce emissions from its own activities and vehicles operated on their behalf.

Localised solutions

The South London boroughs are implementing a wide range of local measures. An Active Travel Strategy was published in Richmond detailing how the Council will aim to increase walking and cycling in the borough. As part of the London Streetspace COVID-19 response, the introduction of cycle lanes and pavement widening was seen in Kingston and other areas.

Schemes to improve the wider environment have been implemented across several boroughs. The tree planting strategy is ongoing in Croydon, Kingston, Sutton and Wandsworth, with Croydon securing funding to plant 3,500 new trees by 2023. All boroughs have initiated action on vehicle idling, either via anti-idling campaigns or by training Council officers to enforce anti-idling restrictions within their respective jurisdictions in 2020 and into 2021. In Merton, MAQF funding was secured for the implementation of Parklets outside schools and Richmond has introduced a new target of making all fourteen new School Streets permanent, enforcing car bans on these streets at school pick up times.

Measures to control traffic have been undertaken in several of the boroughs. Richmond has adjusted speed limits the borough to 20pmh across 90% of the borough's roads. Ongoing actions are also being undertaken to reduce emissions and monitoring compliance at the Nine Elms construction site, and to introduce 20mph speed limits to the surrounding residential roads. Kingston have also secured funding for a feasibility study into the expansion of the ULEZ and other air quality traffic management measures within the borough.

Delivery servicing and freight

Merton continue to provide limited information on local actions dealing with delivery servicing and freight in South London. Bromley is collaborating with TfL on the South London Freight Quality Partnership. Kingston has a long-term measure in place to improve freight access and loading at key locations but did not provide details of progress against this. Croydon and Sutton have been working in partnership on the Croydon Sutton Electric Freight Project, with the 2017-2020 scheme now complete. A common initiative across most boroughs was to promote cargo bikes for local deliveries. For example, Richmond successfully trialled an online website with e-cargo bike next day delivery in the north of the borough. Richmond won a DEFRA bid to promote the Clean Air Villages initiative, which promotes the use of cargo-bikes and information dongles to demonstrate to independent traders the cost savings of switching from diesel to electric vans. Sutton is encouraging existing contractors to become members of their Fleet Operator Recognition Scheme. Wandsworth has ongoing delivery restrictions in Putney High Street and

participation in a Low Emissions Logistics Project to investigate the consolidation of goods and services in hotspot areas. Wandsworth has also appointed a “health streets” champion to help reduce street clutter.

Emissions from development and buildings

A variety of measures are used across South London boroughs to mitigate emissions from developments and buildings. All major developments must now meet GLA Air Quality Neutral standards. Merton are leading a highly successful pan-London NRMM enforcement programme. Ongoing work includes the installation and retrofitting of Ultra-low NO_x gas boilers in Bromley, Croydon, Richmond and Wandsworth. Richmond secured funding from The Department for Business, Energy & Industrial Strategy (BEIS) through the Green Homes Grant Local Authority Delivery Scheme to retrofit homes in the borough. The first eight home transformations of the Sutton Housing Partnership were completed. In Croydon, developments are required to submit a Construction Logistics Plan. Half of the borough of Croydon has been designated a smoke control zone, with options under consideration to extend to the entire borough. Kingston has published new guidance on the Council website regarding the control of emissions through the planning approval process. New Supplementary Planning Document (SPD) for improving air quality and mitigation are also being adopted in Merton and Wandsworth.

Cleaner transport

Most boroughs are progressing with measures to improve cycle and pedestrian infrastructure and services, provision of EV charge points, public transport, and anti-idling signage and/or enforcement. Merton completed its Cycle Quietway between Clapham Common and Wimbledon. A major focus of the southern boroughs in London is the expansion in the use of EV vehicles and the resultant expansion of EV charging points currently available at public locations and at developments. There was an increase of public charging points in Croydon, Kingston, Richmond and Wandsworth. There is also ongoing consultation in Merton to implement a scheme mirroring the ULEZ in the borough. Kingston will also be conducting a feasibility study into the possibility of introducing measures based on the ULEZ. Several boroughs have successfully implemented car clubs in previous years and are now actively expanding their networks to further locations, and with the use of lower emission vehicles. For example, Wandsworth has the highest take-up rate of car club membership in the country with more than 31,000 registered members.

Many boroughs have implemented general and specific measures aimed at encouraging cycling and walking as an alternate form of transport. Bromley offers a cycle to work scheme and cycle training for Council staff. Boroughs which have expanded their infrastructure for on street cycle storage include Croydon, Kingston, Richmond and Merton. Wandsworth promoted a Car Free Day in Tooting Town centre and Clapham Junction.

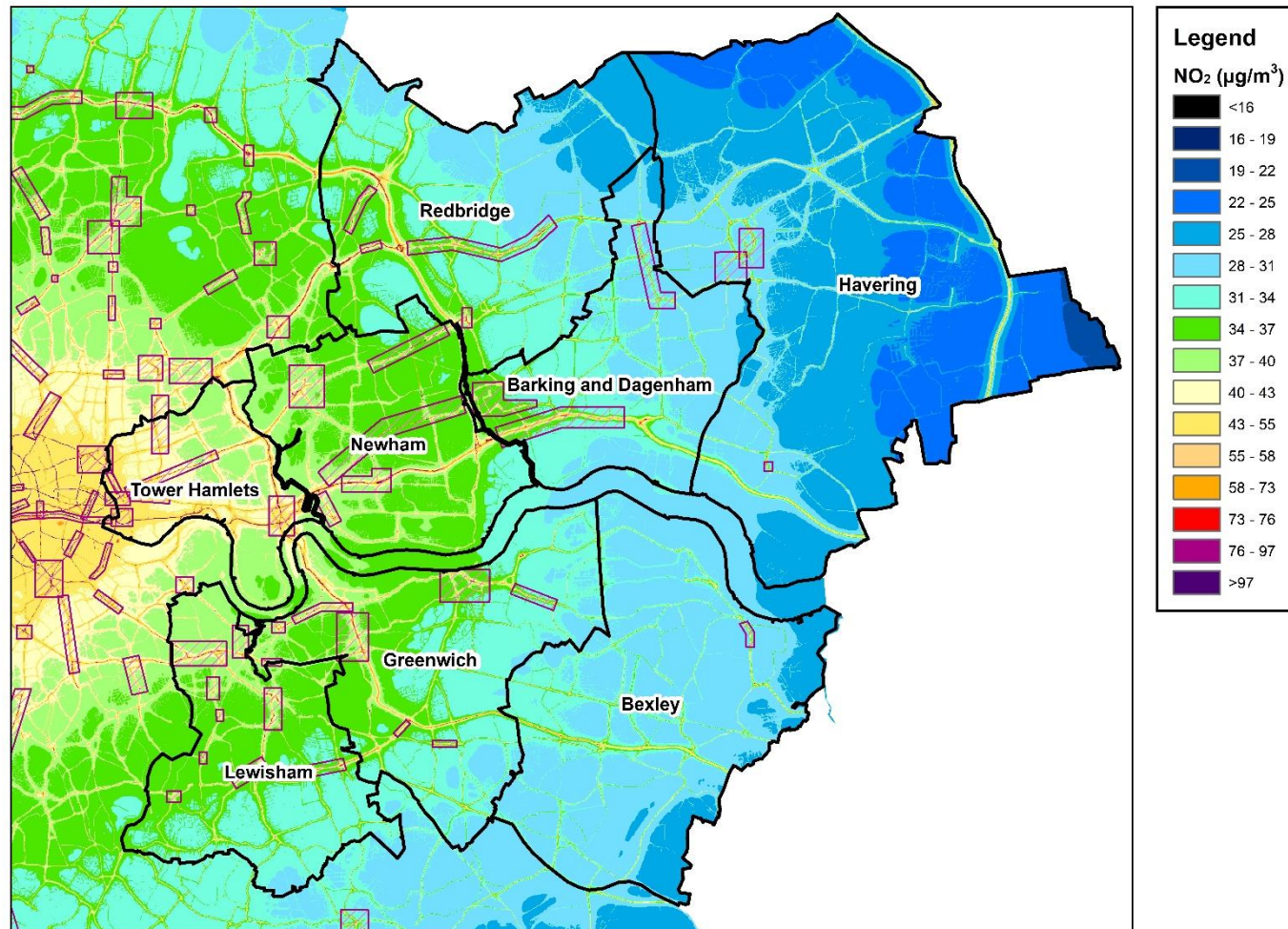
Public health and awareness raising

There was a focus on anti-idling and sustainable travel by most of the South London boroughs, often through wider public awareness campaigns, for example the MAQF funded anti-idling campaign. The introduction of enforcement patrols was a key feature of the anti-idling measures, while greater awareness of anti-idling was also generated through events such as the online training classes, such as those in Croydon and Richmond. Sustainable travel plans are being

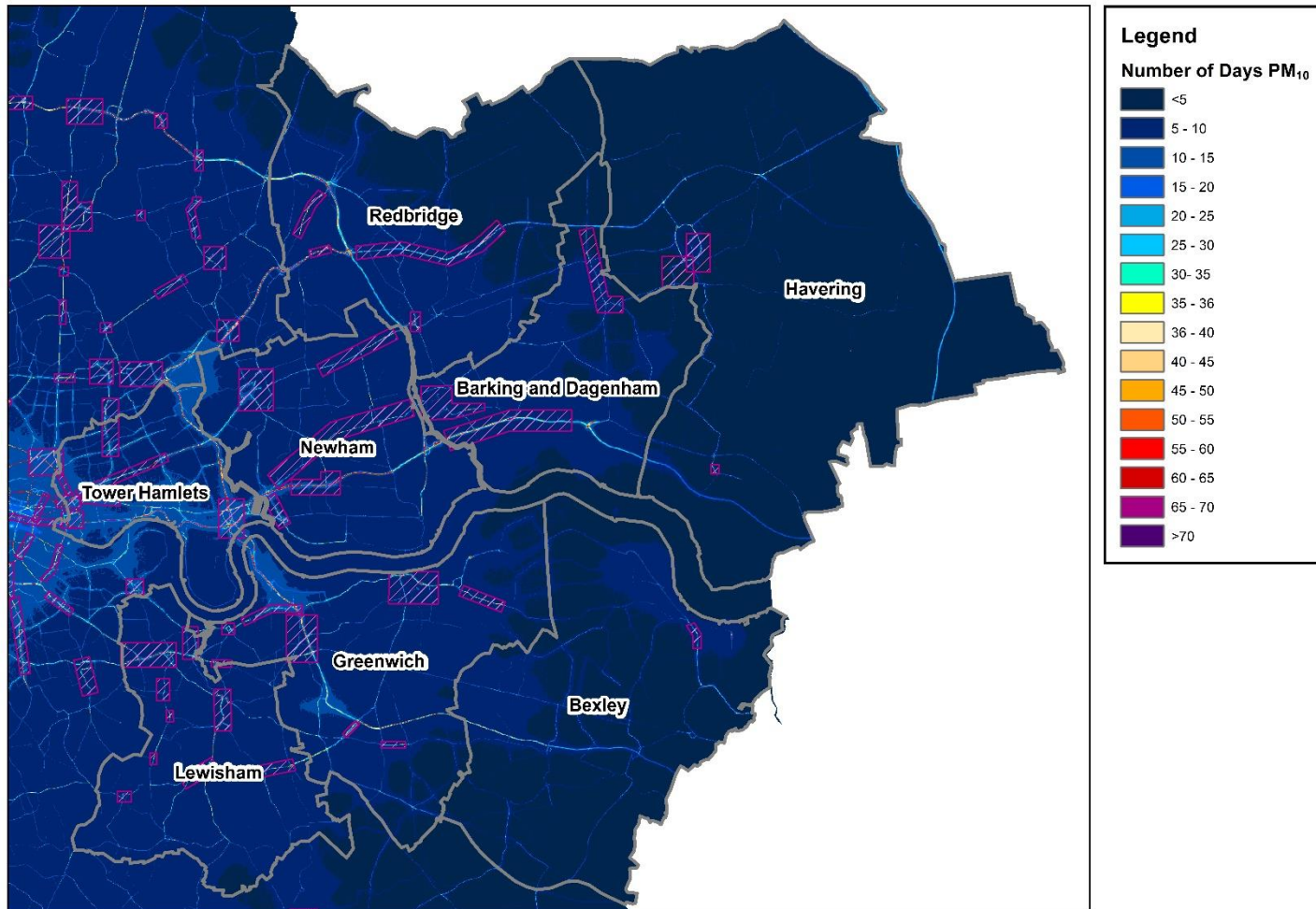
introduced in schools throughout all South London boroughs, many of which participate in the TfL STARS scheme. Merton expanded their SNAP (School Neighbourhood Approach Pilot) project. The *air*TEXT notification service is promoted in all boroughs, which helps to make available all monitoring data via the 'Love Clean Air' website. Several boroughs promoted National Clean Air Day, Car Free Day and Bike Week, among others. In Wandsworth, an interactive air quality theatre show was performed for children at primary schools. However, due to the COVID-19 and the necessity for social distancing, many awareness events had to be undertaken remotely. For example, Kingston, Merton, Richmond, Sutton and Wandsworth delivered their anti-idling campaigns through online promotion and webinars.

East London

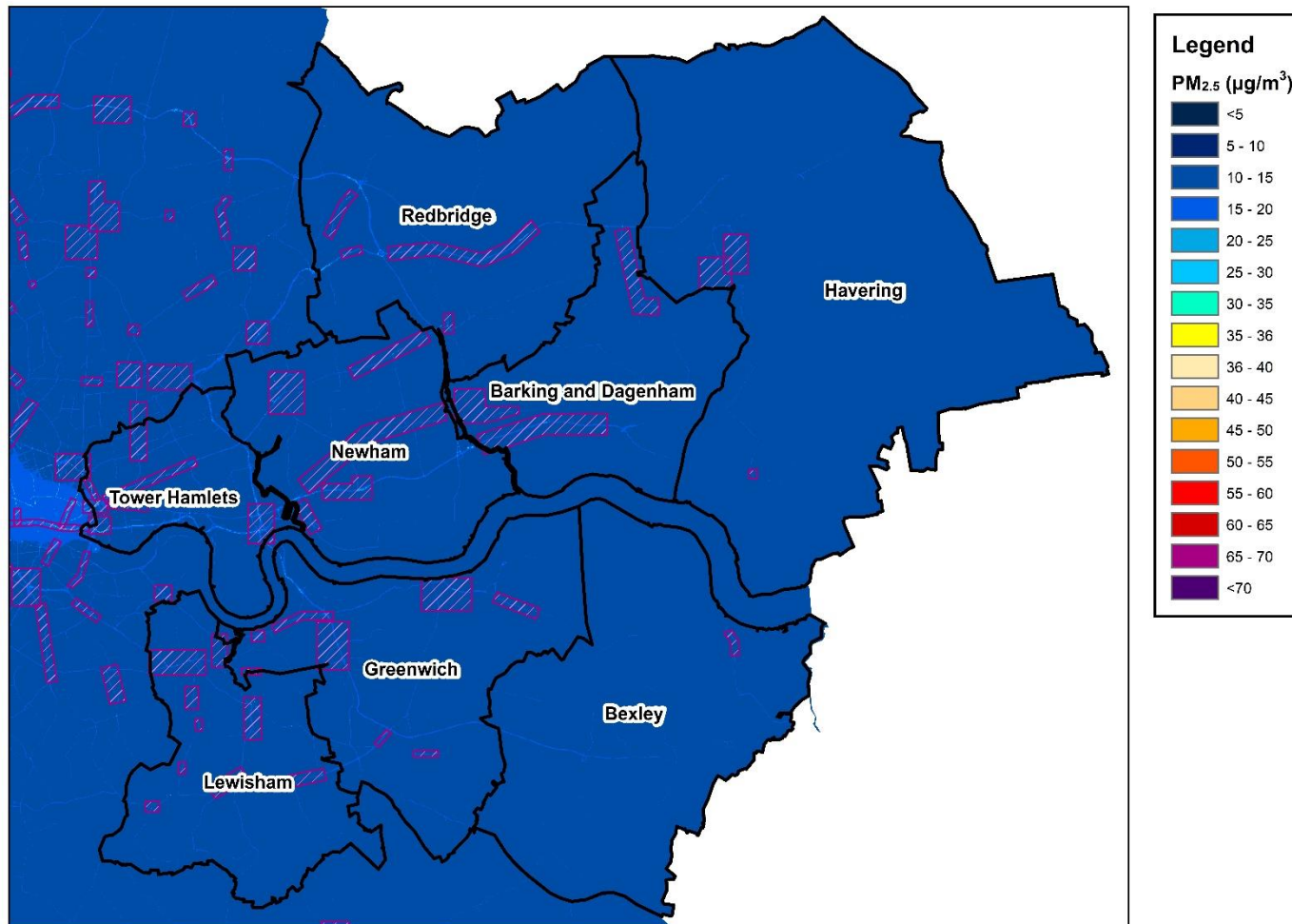
Current air quality focus areas and modelled annual mean NO₂ concentrations (2016)



Current air quality focus areas and modelled number of days exceeding the daily mean PM₁₀ objective (2016)



Current air quality focus areas and modelled annual mean PM_{2.5} concentration (2016)



Source: London Atmospheric Emissions Inventory 2016

Air Quality Summary – East London

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Barking & Dagenham	2021	Y	NO ₂ annual/1h PM ₁₀ 24h	3	2	1	0	8	0	0	0	0	-	-		
Bexley	2019 draft	Y	NO ₂ annual/ PM ₁₀ annual/24h	2	4	4	4*	0	0	0	0	0	0			
Greenwich	2018	Y	NO ₂ annual/ PM ₁₀ 24h	8	10	10	8	42	6	0	0	0	0			
Havering	2018	Y	NO ₂ annual/ PM ₁₀ 24h	3	2	2	1	46	4	0	0	0	0			
Lewisham	2018	N	NO ₂ annual/ PM ₁₀ 24h	9	5	3	3	102	0	0	0	0	0			

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Newham	2019	Y	NO ₂ annual/ PM ₁₀ 24h	5	4	4	3	136	0	0	0	0	0			
Redbridge	2020 update	Y	NO ₂ annual/ PM ₁₀ 24h	4	2	2	2	23	1	0	0	0	0			
Tower Hamlets	2017	Y	NO ₂ annual/ PM ₁₀ 24h	7	4	3	3	90	1	0	0	0	0			

Key

AQAP status	Exceedance status (by pollutant)	COVID-19 Impact on NO ₂	Trends
New AQAP <5yrs old	Below objective	- 20+%	Clear Improvement – All sites recorded lower concentrations in 2020 compared to 2014 data, with no exceedances in 2020.
AQAP under review	Above objectives but improved or equal to previous years	- 10-20%	Partial Improvement – Most sites recorded lower concentrations in 2020 compared to 2014 data, however exceedances remain.
AQAP >5yrs old	Above objective at more locations than previous years	- <10%	Slight Improvement – Although many sites may show improvement, some sites are recording higher concentrations in 2020 compared to 2014 data.

Key Actions – East London

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Barking & Dagenham	<p>10 NO_x diffusion tubes deployed at eight sites in July 2020 (including a co-location), with a target to install a further 20 tubes minimum by 2023.</p> <p>-</p> <p>The Council is working with the GLA and 'Breathe London to install a 3rd continuous air quality monitor to be installed in June 2021.</p> <p>-</p> <p>As the Council did not undertake extensive monitoring in 2019, it is not possible to judge the impact of COVID-19 on monitored concentrations across the borough.</p>	<p>Development of an active travel strategy for Council staff to encourage sustainable transport to and from work.</p> <p>Delivery anticipated by early 2021.</p> <p>-</p> <p>In January 2021 Fleet services undertook anti-idling training with the pan-London scheme led by Camden.</p> <p>-</p> <p>The Council aims to have 25% of</p>	<p>Sustrans are continuing to work within the LEN and produce the Becontree LEN Active Travel Plan Updates, engaging with 40 businesses in the local area and helped to launch the School Street at Grafton School.</p> <p>-</p> <p>The LEN scheme is continuing to operate, implementing the City of London anti-idling projects and initiatives at Grafton and</p>	<p>The Council work with and support TfL to install rapid electric vehicle charging points to encourage low emission vehicles, which resulted in three rapid electric vehicle charge points installed in 2020.</p>	<p>Participation in the pan-London NMRM registration campaign in conjunction with the London Borough of Merton.</p> <p>-</p> <p>The Council enforce the GLA 'Air Quality Neutral' policy to all major developments. This target achieved 100% in 2020.</p> <p>-</p> <p>100% of planning applications included NRMM conditions.</p> <p>-</p> <p>Cleaner Construction for London undertook 23 site audits in 2020,</p>	<p>Cycle route CFR10 Quietway from Barking Town Centre to Barking Riverside is complete.</p> <p>-</p> <p>The Council has applied for TfL funding from the Cycling Network Development (CND) Fund to undertake in-depth studies / designs of three new cycling routes and three programmes of route upgrades.</p> <p>-</p> <p>The Council has developed a Cycling and Walking Strategy, which includes an</p>	<p>30 schools are currently registered in the TfL STARS accreditation programme, with Three Gold and five Bronze STARS awarded,</p> <p>-</p> <p>Five School Streets were delivered in 2020/21, with a further seven School Streets being explored for adoption.</p> <p>-</p> <p>Sustrans ran 10 'Learn to Ride' sessions with schools and launched a</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
		<p>total fleet vehicles to be fully electrified by 2025.</p> <p>-</p> <p>The Council is currently looking at EVs for most fleet however further research / feasibility studies required looking at larger vehicle power sources.</p>	<p>William Bellamy Schools.</p>		<p>with six sites achieving self-compliance, 13 sites worked towards and achieved compliance and one site failed and were recorded as non-compliant. 17% of sites audited were not registered prior to auditing.</p>	<p>indicative programme for infrastructure investment over the next 10 years to improve cycling and walking provision.</p> <p>-</p> <p>The Council commissioned a Healthy Street study of Valance Avenue, to include significant interventions to improve provisions for cycling & walking.</p> <p>-</p> <p>The Council work with and support TfL to install rapid EV charging points to encourage LEVs, which resulted in three rapid EV charge points being installed in 2020.</p>	<p>community bike club and walking group.</p> <p>-</p> <p>Developing a communications strategy to disseminate air quality information.</p> <p>-</p> <p>Work undertaken between Sustrans, the Council and BeFirst to implement 12 car free days in the borough on 22nd September.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Bexley	<p>Existing levels of monitoring maintained. The Council does not have any NO₂ diffusion tubes.</p> <p>-</p> <p>Automatic site BX2 was re-located mid-way through the year.</p> <p>-</p> <p>Due to the COVID-19 pandemic there has been a significant reduction in air pollution levels however this is expected to return to a 'new normal' in time. Monitoring data suggests a 25% decrease in annual concentrations.</p> <p>-</p> <p>An update to the AQAP is mentioned in the ASR, though this has not been published publicly.</p>	<p>Car sharing, cycling, running or walking and public transport fleets offer the option to reduce the need for cars to travel to the office.</p> <p>-</p> <p>Proposals in place to replace the Street Services fleet over the next two years to meet Euro VI standard.</p>	<p>The Council will be maintaining the measures implemented in the AQAP to deal with PM₁₀ emissions at Manor Road, Erith.</p> <p>-</p> <p>The Council is working with TfL to assess where bus improvements can be implemented that will improve reliability and reduce journey times.</p>	<p>Awareness campaign for freight operators to encourage FORS membership.</p> <p>-</p> <p>Trial study for out-of-hours deliveries using quiet vehicle technologies.</p>	<p>NRMM conditions are being placed on all relevant planning permissions.</p> <p>-</p> <p>Declared the whole borough of Bexley as a Smoke Control Area. Enforcement of Smoke Control Orders.</p> <p>-</p> <p>Major development proposals are required to submit an air quality assessment, and are expected to be 'air quality neutral'.</p>	<p>316 individual EV charging points have been/in process of being installed, largely in private parking within new residential developments.</p> <p>-</p> <p>Cycle parking to be provided as part of regeneration schemes in the Council's Programme of Investment (PoI), including Bexleyheath Town Centre Revitalisation Phase 2, Sidcup Town Area Renewal Phase 3, Yarnton Way Streetscape and Secondary Town Centre Improvements.</p> <p>-</p>	<p><i>air</i>TEXT promoted to the public.</p> <p>-</p> <p>The AQAP includes a proposed programme of engaging with schools. It includes looking at School Travel Plans, publicising and encouraging participation in STARS, and an information and engagement campaign to dissuade car idling near schools.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
						The Council will continue to work with TfL to identify the potential and business case for installing electric charging points at new large developments and in town centres.	
Greenwich	Diffusion tube monitoring network has remained unchanged. - Monitoring data shows an 25% decrease in NO ₂ concentrations compared to 2019 levels.	The Council's borough fleet has retained FORS Bronze accreditation for 2020. Additional funding for improvements to fleet to achieve Silver standard has been secured for 2020/21. - The fleet continues to be replaced with zero	Funding from the Mayor of London will see public realm work along White Hart Road adjust the nature of the highway, introducing green infrastructure and tree planting where possible and improving cycle and pedestrian routes. -	Part of the Carbon Neutral Plan is - "Beginning to convert the Council's fleet to EVs where feasible" and "Assessing the feasibility of Zero Emissions Zones, access restrictions, consolidations opportunities and larger cycling infrastructure projects."	Retrofit works are currently underway in two housing estates in the East Greenwich area, including energy efficiency measures and new technologies. Works expected to be complete by the middle of 2021. - The Council has supported South East London Community Energy in installation of renewable energy	'Free floating' one-way car clubs are in the boroughs forward plan. This would allow people to make one-way trips, without having to return the car back to where they started. - The delivery of additional lamp post charge points has been delayed due to COVID-19; however they are expected to	Promote <i>air</i> TEXT. - The TfL STARS accreditation scheme was suspended in 2020 due to COVID-19 school closures. It is expected to be picked up again in September 2021. - A further three schools are currently being assessed for the School Streets

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
		<p>emission or LEZ/ULEZ-compliant vehicles. There are now 12 electric vehicles on the fleet, one plug-in petrol hybrid and three diesel hybrids.</p> <p>-</p> <p>A long-term strategy is in place to ensure that 98% of the non-HGV fleet will be ULEZ compliant by October 2021. This will replace approximately 300 vehicles.</p>	<p>A total of 2,022 trees have now been planted in the borough, which was completed two years ahead of target in 2020.</p> <p>-</p> <p>The Council has been working with Park Friends Groups to obtain external funding to support tree planting incentives.</p>		<p>on Thamesmere and Coldharbour Leisure centres. Installation began in 2020.</p> <p>-</p> <p>Actively participating in the NRMM enforcement scheme led by Merton to minimise emissions and dust from machinery on construction sites.</p>	<p>be installed by the end of 2021.</p> <p>-</p> <p>E-Z Cycle, managed by Charlton Athletic Community Trust, opens e-bikes up to anyone who lives, works or studies in the entire borough.</p> <p>-</p> <p>The Council has further expanded the 20mph zones. A 20mph zone has been completed at Waterdale Road (Plumstead). Work on another 20mph zone at Colepits Wood Road (Avery Hill) scheduled.</p>	<p>scheme, which trials will be launched in 2021.</p> <p>-</p> <p>The Council air pollution website includes a section 'What can Businesses Do?' provides information and advice on how businesses can improve air quality.</p>
Havering	<p>Number of diffusion tube sites increased in 2020.</p> <p>-</p>	<p>The Council aimed to provide Smarter Driving Training</p>	<p>The planting of greenery and tress was not carried out in 2020 due to</p>	<p>The Council ensures that suppliers of large council contracts have</p>	<p>Chimney smoke complaints are investigated to</p>	<p>Taxi drivers were made aware of the ULEZ scheme, in which the Council</p>	<p>The Council actively promotes events such as Bike to School Week, Walk</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>Due to COVID-19, diffusion tubes were left unchanged for three exposure periods to adhere to government lockdown restrictions. The Council has classified this as a 'Medium' overall impact.</p> <p>-</p> <p>Monitoring data shows that annual NO₂ concentrations have decreased by more than 10% compared to 2019 levels.</p>	<p>for all vocational drivers of the Council's fleet vehicles. This will emphasise anti-idling, efficient driving and cycle awareness.</p>	<p>a lack of funding.</p> <p>-</p> <p>The Council aims to reduce the number of overloaded vehicles and this is expected to lead to a reduction in emissions. In total, five checks were carried out in 2020.</p>	<p>attained Silver or Gold FORS accreditation for their organisation and vehicles.</p>	<p>determine if authorised fuels are being used by the resident.</p> <p>-</p> <p>Planning conditions to require Air Quality Neutral, AQ Assessments, dust monitoring, ultra-low NO_x boilers, NRMM, CHP and Biomass, and electric car charging points.</p> <p>-</p> <p>Havering joined the MAQF NRMM scheme being managed by the LB Merton, 26 audits were undertaken in 2020. All sites were compliant (27% self-compliant, 73% compliant following</p>	<p>promoted the locations of rapid chargers for electric taxis.</p> <p>-</p> <p>In 2020, due to COVID-19 little progress was made in the Bikeability scheme.</p> <p>-</p> <p>An Electric Vehicle Charging Strategy and Implementation Plan drafted, bids to be submitted in summer 2021 for EV charging points across the borough.</p> <p>-</p> <p>The Council's Local Implementation Plan 3 was formally approved by the TfL in 2019. Delivery of this was challenging in</p>	<p>to School Week or Clean Air Day.</p> <p>-</p> <p>Promote <i>air</i>TEXT.</p> <p>-</p> <p>In 2020, 47 schools went through the TfL STARS programme, over 50% of Havering schools. 37 of these are at Gold, one Silver and nine at Bronze level.</p> <p>-</p> <p>Promote walking and cycling and engage with over 50's forum to form a walking club and organised led rides.</p> <p>-</p> <p>Delivery of the Mayor's Healthy Streets agenda in Havering included working with two primary schools in the borough to</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
					engagement with inspections).	2020 due to COVID-19 and limited funding; however, it is hoped that further funding will become available in 2021.	develop Walking Zone maps encouraging pupils to travel to school actively.
Lewisham	<p>An additional continuous monitor was installed in 2019, providing a full year of data in 2020. The monitor measures NO₂ and PM_{2.5}.</p> <p>-</p> <p>51 new diffusion tube sites were added in 2020.</p> <p>-</p> <p>Analysis of the impact of COVID-19 on air pollutant concentrations in the borough suggest that there is a 20% decrease in concentration of NO₂ due</p>	<p>The borough now has 25 petrol/hybrid vehicles in fleet plus two hybrid refuse vehicles. The borough is considering adopting electric refuse vehicles and are reviewing options for the future.</p> <p>-</p> <p>COVID-19 has stalled the upgrade of borough fleet, but</p>	<p>Urban greening strategies are considered on a site by site basis as a new development is proposed.</p> <p>-</p> <p>The Council aims to improve and introduce green spaces in new developments through the planning process by conditions and S106 obligations.</p>	<p>Lewisham cargo bike scheme was introduced in 2020 for pharmacies deliveries.</p> <p>-</p> <p>Lewisham have awarded a stationary contract to Staples UK, Staples works with Fedex to deliver items within the borough every two days rather than every day to minimise emissions.</p> <p>-</p>	<p>Progress has been made on the draft Local Plan. It includes technical studies and policy proposals. The draft plan will reflect Air Quality Neutral standards, in line with the London Plan.</p> <p>-</p> <p>In 2020, the Council approved a New Climate Emergency Action Plan, setting out actions to cut carbon and reduce energy consumption with a focus on</p>	<p>All residential roads in Lewisham have a posted 20mph speed limit.</p> <p>-</p> <p>The Council has implemented School Streets at 26 schools with more to follow. Community car free days will also be implemented in September 2021.</p> <p>-</p> <p>A £50 surcharge applies to annual resident and business</p>	<p>Implemented the School Superzone pilot project to create a healthier and safer environment for children within 400m radius around schools. The project encourages healthy behaviours but targeting unhealthy food and drink sales, alcohol, smoking and air quality.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>to reduction in movement because of lockdowns.</p> <p>-</p>	<p>75 Euro 6 vehicles are on order: 24 refuse vehicles, 50 buses, one tipper. Only 10 buses have been delivered. Fleet will be 100% compliant with ULEZ by the deadline.</p>		<p>All passenger transport providers' vehicles will be Euro VI compliant by end of 2021, 50% ULEV end of 2022 rising to 75% by end of 2023</p> <p>-</p> <p>The Highways team are preparing a new tender and FORS will be included in the documentation. The award is targeted for April 2021.</p> <p>-</p> <p>On-street loading facilities have been secured as part of the planning process. In FY20/21, the Council has begun specifying EV charging points for new loading facilities, with implementation</p>	<p>energy consumption in homes and workplaces.</p> <p>-</p> <p>The Council is part of the pan-London project MAQF NRMM to inspect construction sites to ensure they are using the cleanest construction equipment.</p> <p>-</p> <p>The Council delivered the £90,000 Lewisham's Community Energy Fund which supported 11 projects including the installation of renewables and lighting in schools and community buildings.</p>	<p>permits where the vehicle does not meet Euro 6 standard or better.</p> <p>-</p> <p>Due to COVID-19, expansion of the rapid chargers for EVs has been placed on hold.</p> <p>-</p> <p>13 extra bike hangers installed in 2020, equating to 78 new spaces.</p> <p>-</p> <p>All 3 Quietway routes have been delivered, though Southend Lane and the Waterlink Way Bridge delayed due to COVID-19.</p> <p>-</p>	<p>Public Health is promoting the Lewisham Air App through Lewisham Clinical Commissioning Group (CCG) to raise awareness, so that the GPs promote the app to Chronic obstructive pulmonary disease (COPD) and Asthma patients.</p> <p>-</p> <p>Before the pandemic all schools were offered Bikeability training. Balance bike and scooter training is an annual offer to schools for lower school pupils.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
				planned between 2021-2025.		Resident parking permits are now based on vehicle emissions.	STARS project continues to be a priority in Lewisham, with 19 Gold STARS.
Newham	<p>2019-2024 AQAP now published</p> <p>-</p> <p>Whole borough now declared as an AQMA, amended December 2019.</p> <p>-</p> <p>NO₂ diffusion tubes installed at all 99 Newham schools as part of the extended AQ audits to facilitate targeted AQ initiatives as detailed in the 'Healthy School Streets' programme. No schools reported exceedances of the annual NO₂ mean objective.</p> <p>-</p>	<p>The Council's fleet now consists of 40 fully electric vans. This is part of £20m of investment in renewing the fleet</p> <p>.</p> <p>-</p> <p>Installation of 15 slow charging units to be installed at Folkestone Road Depot in 2021. Head of Service, Unions & Fleet to confirm location of 20 slow charging units in</p>	<p>Stratford residents successfully bid for Greener Together project and will become the first borough in London to launch the scheme.</p> <p>-</p> <p>Low Traffic Neighbourhood schemes are being introduced on an experimental basis and will be in place for a maximum of 18 months.</p> <p>-</p>	<p>The Council aim to implement a trial zero emission last mile delivery project in Stratford in 2020 for local business & residents.</p> <p>-</p> <p>Local town centre cargo bike hire and share scheme.</p> <p>-</p> <p>Highways & Traffic Management are in discussions with Stratford Business Improvement District (BID) with the aim to rollout zero emissions last mile delivery in</p>	<p>Cleaner Construction for London undertook 35 site audits in 2020. Five sites achieved self-compliance, 17 sites worked towards and achieved compliance, 10 sites had no NRMM within scope and three sites upon arrival/engagement were completed.</p> <p>-</p> <p>All approved major planning applications must meet Mayor's Air Quality Neutral and CHP standards.</p> <p>-</p>	<p>Installed 100 charging points, with a capacity to charge 140 cars at one time -</p> <p>Emissions Based Parking charges were launched on 6th January 2021, with a tiered system of charges relating to CO₂ emissions.</p> <p>-</p> <p>Cycle parking rollout has slowed in 2020 due to issues in funding as a result of COVID-19 but will resume in April 2021.</p> <p>-</p>	<p>As part of "50 Steps to Healthier Newham" strategy the Public Health Department is encouraging and supporting active travel and improved air quality.</p> <p>-</p> <p>Continued promotion of <i>airTEXT</i>.</p> <p>-</p> <p>On 22nd February 2021 the Council launched Engine Off campaign, to discourage vehicle idling.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>Council monitoring also supplemented by 16 additional diffusion tubes for London City airport, 3 continuous sites, monitoring NO₂ x2 PM₁₀ x2 and PM_{2.5} x1. Additional four diffusion tube sites to assess changes to Stratford Gyrotory System, which result in no exceedances.</p> <p>12 additional continuous monitors installed on LTN's and roads with AQ initiatives.</p> <p>-</p> <p>Due to the COVID-19 pandemic, the borough recorded significant reductions in NO₂ concentrations, between 19 and 27%.</p>	<p>Bridge Road Depot.</p> <p>-</p> <p>All the Council's fleet are using Gas to Liquid (GTL) fuel.</p> <p>-</p> <p>Fleet services have been accredited 'Clean Van Commitment' and pledged to Engine Off.</p>	<p>300 additional trees to be planted in March/April 2021.</p> <p>-</p> <p>New woodland planting in collaboration with Tree for Cities is underway at Barrington's Open Space.</p>	<p>the Stratford area.</p> <p>Subject to the outcome of this pilot, the Council will look to expand the delivery service to the whole borough.</p>	<p>The Council ensure real-time particulate monitoring at all medium & high-risk construction & demolition sites is delivered.</p> <p>-</p> <p>The Council has commenced providing energy efficiency and cold homes advice to private rented sector tenants at 300 dwellings per month.</p> <p>-</p> <p>No new applications for CHP plants received in 2020.</p>	<p>Air Quality risks should be fully evaluated in all transport feasibility studies and proposals.</p>	<p>-</p> <p>15 Healthy School Streets were set up with a working group and "20 Most Polluted Schools" were identified, of which 10 were eligible for intervention.</p> <p>-</p> <p>The TfL STARS campaign was impacted by the COVID-19 pandemic. Many schools are looking to move from Bronze towards the higher levels of accreditation next year.</p>
Redbridge	Monitoring network has remained unchanged.	Member of the Freight Transport	Implementation of Green	Update of the procurement policy to	Number of planning applications	Two EV rapid charging points to be	Coordination with public health.

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>-</p> <p>Monitoring data shows a 29% decrease in annual NO₂ concentrations compared to 2019 levels.</p>	<p>Association with Truck Excellence accreditation. This is the equivalent to the Bronze FORS accreditation. The Council aims to achieve Silver by 2022 and Gold by 2024.</p> <p>-</p> <p>Accelerate uptake of Euro VI vehicles into fleet.</p> <p>-</p> <p>The Council is exploring the possibility of obtaining FORS Gold accreditation for its fleet.</p> <p>-</p> <p>Increase the number of electric</p>	<p>infrastructure through MAQF and Section 106 funding.</p> <p>-</p> <p>Low Emission Neighbourhoods (match funded support from GLA).</p> <p>-</p> <p>Ilford Garden Junction and pending bid for Ley Street LEN.</p>	<p>ensure that suppliers with large fleets are Bronze FORS accredited and bidders are preferentially chosen based on the emissions released from their fleet.</p> <p>-</p> <p>Reducing the emissions from deliveries to local businesses and residents.</p>	<p>conditioned for dust management best practice and automatic air quality monitoring in line with SPG Guidance.</p> <p>-</p> <p>The Council educate, raise awareness and enforce NRMM air quality policies.</p> <p>-</p> <p>Number of Air Quality Neutral assessments completed in accordance with GLA.</p> <p>-</p> <p>Annual reporting of number of planning applications conditioned for CHP or biomass in line with SPG Guidance.</p>	<p>installed in the Council's Ley Street Depot.</p> <p>-</p> <p>Road space restriction around school has been proposed and detailed in the current MAQF and LEN bids.</p> <p>-</p> <p>Free or discounted parking for EVs and installation of EV charge points and rapid charging points.</p> <p>-</p> <p>The Council will introduce parking surcharge on diesel vehicles below Euro 6 standards for Resident and Controlled Parking permits.</p>	<p>Director has been briefed on issues surrounding AQ with further briefing annually.</p> <p>-</p> <p>Working with GP surgeries and Pharmacies in the borough to help improve air quality and reduce exposure for their patients.</p> <p>-</p> <p>Encourage schools to join the TfL STARS travel planning program.</p> <p>-</p> <p>MAQF Project to implement anti-idling and road closure measures around targeted schools. Extending</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
		<p>and hybrid vehicles in fleet to comply with ULEZ standards.</p> <p>-</p> <p>Smarter Driver Training for fleet drivers for efficient driving.</p> <p>Regular re-training of staff.</p>					<p>the Mayor's school audits to all polluted schools.</p> <p>-</p> <p>Promotion of <i>air</i>TEXT and the Mayor of London's air pollution forecasts.</p>
Tower Hamlets	<p>Diffusion tube network has remained unchanged, but Council now monitors PM_{2.5} at three locations.</p> <p>-</p> <p>Diffusion tube monitoring was temporarily suspended due to COVID-19 lockdown but then resumed in August, meaning all sites were annualised.</p> <p>-</p> <p>Four locations monitored NO₂ concentrations greater</p>	<p>The Council is accelerating the uptake of new EURO VI vehicles in its borough fleet, ending the purchase of diesel vehicles where feasible.</p> <p>-</p> <p>Fleet procurement for cars and vans has been delayed by the COVID-19,</p>	<p>LEN replaced with Liveable Street programme.</p> <p>-</p> <p>The Council received funding for a business LEN in Whitechapel and officers are currently developing the Project Action Plan.</p> <p>-</p>	<p>The Council has purchased two cargo bikes to deliver literature to councillors.</p> <p>-</p> <p>Local Plan policy D.TR4 states that a significant number of vehicle trips for goods or materials is required to demonstrate sustainable transport.</p>	<p>Air Quality Neutral policies adopted.</p> <p>Compliance checked at planning application stage for every major development proposal.</p> <p>-</p> <p>100% of schemes in 2020 had suitable energy efficiency measures installed to reduce the demand</p>	<p>In March and April 2021, 94 new lamp post charging points were added to an existing network of 42 charging points. The total networks is now 136.</p> <p>-</p> <p>In 2020, the Staff Travel Plan was postponed due to COVID-19.</p> <p>-</p>	<p>Ongoing work with Communications team internally to disseminate information, arrange and agree street and schools signs and updates to Breath Clean message.</p> <p>-</p> <p>The Council is rolling out school travel plans to 70% of primary schools</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>than 40 µg/m³. Post distance correction, three of these were compliant with the objective. One further site, reported above, could not be distance corrected.</p> <p>-</p> <p>Monitoring data shows that annual NO₂ concentrations decreased by 25% compared to 2019 levels.</p>	<p>however on track to replace the entirety of the Council's fleet with Euro VI diesel or hybrid petrol cars over the coming months.</p> <p>-</p> <p>The Council has joined FORS and have a working group forming to work towards bronze accreditation.</p>	<p>Contributed to ULEZ consultations. ULEZ will include all of borough when it is extended to North Circular in October 2021.</p> <p>-</p> <p>The Council is delivering boiler replacement and insulation programme for residents.</p> <p>-</p> <p>Funding available to install living green screens/walls at school to reduce pollution.</p>		<p>for onsite heat generation from boilers & CHPs</p> <p>-</p> <p>The Council ensures all major developments adhere to the GLAs NRMM.</p>	<p>Parking permits now include banding which has lowest parking fee for low emissions vehicles, and greatest fee chargeable for diesel vehicles.</p> <p>-</p> <p>Local Plan D.TR2 will prioritise the needs of pedestrians and cyclists as well as access to public transport including river transport, before vehicle modes of transport.</p>	<p>within the borough. Current proportion of schools is 50%.</p> <p>-</p> <p>Anti-idling campaign launched in March 2020, which was severely impacted by COVID-19.</p> <p>-</p> <p>Promotion of <i>airTEXT</i>.</p>

Summary – East London

AQ monitoring and core statutory duties

Borough-wide AQMAs are declared for exceedances of the annual mean NO₂ objective and daily mean PM₁₀ objective in all East London boroughs, with the exception of Lewisham, which has two AQMAs which cover most of the borough apart from the south eastern part. In 2019, Newham revoked the former AQMA, which had covered the main roads in the borough, in favour of a borough-wide AQMA for annual mean NO₂. Additionally, Barking & Dagenham has an AQMA also declared for an exceedance of the hourly mean NO₂ objective and Bexley has an AQMA also declared for exceedance of the annual mean PM₁₀ objective.

Greenwich, Havering, Lewisham, Newham, and Tower Hamlets have up to date AQAPs. Bexley and Redbridge and in the process of drafting updated AQAPs, though these are yet to be published, with Bexley's draft having been pending since 2018.

East London boroughs showed improvements in annual mean NO₂ concentrations by on average 20-25%. Barking & Dagenham, Bexley, Lewisham and Newham recorded no exceedances of the annual mean NO₂ objective in 2020. It is important to note however that Bexley do not undertake diffusion tube surveys, therefore the understanding of NO₂ throughout the borough is limited, and LAEI modelling indicated that there are still areas of exceedance. Further improvements of NO₂ concentrations were observed in other East London boroughs. Most notably, Tower Hamlets showed a drop from twenty-one locations exceeding in 2019 to just one location post distance correction in 2020. Greenwich also showed a notable improvement in NO₂ exceedances, showing a drop from sixteen locations exceeding in 2019 to six locations in 2020. Longer term improvements are also demonstrated, with partial improvement in NO₂ concentrations in the last seven years in all boroughs. That said, some boroughs still have some way to go to achieve uniform compliance with the annual mean NO₂ objective. All boroughs are however compliant with the NO₂ hourly mean objective in 2020.

Particulate Matter objective compliance was also demonstrated across the East London boroughs with concentrations of PM₁₀ and PM_{2.5} being below objectives and all boroughs demonstrating improvement in the last seven years.

PM_{2.5} was monitored at twenty-four automatic sites in East London in 2020, an increase from twenty in 2019. Bexley monitors PM_{2.5} at all four automatic sites in the borough (two urban background, one suburban background and one kerbside site), though two sites were not reported in 2020 due to a mid-year upgrade to the instrumentation. Greenwich monitors PM_{2.5} at eight sites in total (one suburban and seven roadside sites). PM_{2.5} is also monitored at one roadside site in Havering, one roadside and two urban background sites in Lewisham, one urban background and one urban traffic site in Redbridge, and two roadside site and one urban background in Tower Hamlets. Newham monitors PM_{2.5} at three locations in the borough.

Bexley, Greenwich, Redbridge, and Tower Hamlets have maintained their existing levels of monitoring. Newham installed ninety-nine diffusion tubes at schools in the borough and notable additional monitoring surveys are being undertaken in Newham to monitor London City Airport

and the impact of the Stratford Centre Gyrotory. Lewisham installed fifty-one new diffusion tube locations in 2020, and Havering increased their diffusion tube monitoring by six locations. Barking & Dagenham ceased diffusion tube monitoring at the end of 2017.

Borough fleet actions

There are several programmes delivering improvements in fleet emissions. Several boroughs (Bexley, Greenwich, Lewisham, Redbridge, and Tower Hamlets) are undertaking programmes to ensure fleet vehicles meet aspirational Euro classes and/or FORS accreditation, with this being done through improvements to existing vehicles or with new additions. Redbridge, Greenwich, Lewisham, and Newham have increased their use of electric/hybrid vehicles, while Barking & Dagenham are investigating the use of EVs within their fleet. Many boroughs have purchased EVs and are looking to implement their use for refuse vehicles. Barking & Dagenham aim to have 25% of fleet vehicles to be fully electrified by 2025 while Bexley are encouraging car sharing, cycling, running or walking and public transport to reduce the need for cars to travel to the office. Greenwich aim to replace 300 vehicles by October 2021 to be ULEZ compliant, while Havering and Redbridge aim to provide Smarter Driver Training for all vocational drivers of the Council's fleet vehicles. All of Newham's Council's fleet are using GTL fuel, and Redbridge Council is a member of the Freight Transport Association's 'Truck Excellence' scheme, which is an equivalent to FORS accreditation.

Localised solutions

Key local initiatives involve a variety of measures to address local pollution hotspots. Barking & Dagenham continue to implement the LEN scheme and Bexley will continue to maintain measures implemented in the AQAP to deal with PM₁₀ emissions at Manor Road, Erith. Havering Council carried out five checks in 2020 aiming to reduce the number of overloaded vehicles, which is expected to lead to a reduction in emissions. Many boroughs are implementing green infrastructure, such as Greenwich, where a target of planting 2,022 trees by 2022 was achieved ahead of time and Newham, who plan to plant 300 additional trees in March/April 2021. However, Havering Council did not carry out the scheduled planting of greenery and trees in 2020 due to a lack of funding. Lewisham and Redbridge aim to improve and introduce green spaces in new developments through the planning process by conditions and S106 obligations. Bexley are working with TfL to assess where bus improvements can be implemented that will improve reliability and reduce journey times.

Delivery servicing and freight

There are various projects in place in Bexley, Greenwich, Lewisham, Newham and Tower Hamlets to explore quiet vehicles for out-of-hours deliveries, zero emission deliveries, Low Emission Logistics studies and freight consolidation. Bexley are also carrying out an awareness campaign for freight operators to encourage FORS membership, while Lewisham, Havering and Redbridge also have similar schemes in place. Lewisham have awarded a stationary contract to Staples UK, who are working with Fedex to deliver items within the borough every two days rather than every day to minimise emissions. Lewisham has also begun specifying EV charging points for new loading facilities with implementation planned between 2021-2015. Tower Hamlets have purchased e-cargo bikes to deliver literature to councillors, whereas Newham aim to implement a trial zero emission last mile delivery project in Stratford in 2020 for local business & residents.

Emissions from development and buildings

The boroughs in East London have stated that any future developments will be required to comply with planning regulations, which include the London Plan Policy, the Mayor's carbon reduction targets, the Mayor's Air Quality Neutral standard, conditions to regulate ultra-low NO_x boilers, NRMM, CHP and Biomass assessments. NRMM regulations are being enforced via inspections throughout several of the boroughs including Barking & Dagenham, Bexley, Greenwich, Havering and Lewisham.

The whole borough of Bexley was declared as a Smoke Control Area which will be enforced by designated Smoke Control officers. Greenwich has retrofit works underway at two housing estates to provide better energy efficiency measures and technologies which is expected to be completed by the middle of 2021, and Lewisham approved a New Climate Emergency Action Plan, setting out actions to cut carbon and reduce energy consumption with a focus on energy consumption in homes and workplaces.

Havering investigates chimney smoke complaints to ascertain whether authorised fuels are being used by the resident. Newham have commenced providing energy efficiency and cold homes advice to private sector tenants at 300 dwellings per month. Newham also ensure real-time particulate monitoring at all medium & high-risk construction sites is delivered. Redbridge report the number of planning applications conditioned for CHP or biomass in line with SPG Guidance, while in Tower Hamlets, 100% of schemes had suitable energy efficiency measures installed to reduce the demand for on-site heat generation from boilers & CHPs.

Cleaner transport

There are many active and successful projects promoting sustainable transport. East London boroughs are promoting and/or implementing schemes to improve pedestrian and cycling infrastructure, provide EV charging points and improve public transport links and services. Barking & Dagenham have commissioned a 'Healthy Street' study of Valance Avenue, to include significant interventions to improve provision for sustainable transport modes. Further to this, they are utilising TfL funding from the Cycle Network Development (CND) scheme to undertake in-depth studies/designs of three new cycling routes and three programmes of route upgrades in the borough. In Newham, the cycle parking rollout slowed in 2020 due to issues in funding as a result of COVID-19, but this was expected to resume in April 2021.

The installation of EV charging points was encouraged in Bexley, Newham and Redbridge at new developments and other residential locations. The delivery of additional lamp post charge points was delayed in Greenwich due to COVID-19, however they are expected to be installed by the end of 2021. Havering have drafted an Electric Vehicle Charging Strategy and Implementation Plan, with funding bids expected to be submitted in summer 2021 for EV charging points to be delivered across the borough. The E-Z Cycle scheme managed by Charlton Athletic Community Trust in Greenwich, opens e-bikes up to anyone who lives, works or studies in the borough.

Greenwich and Lewisham have implemented 20mph speed limit zones, and Lewisham have installed 13 extra bike hangers installed in 2020 equating to 78 new spaces. Lewisham, Newham,

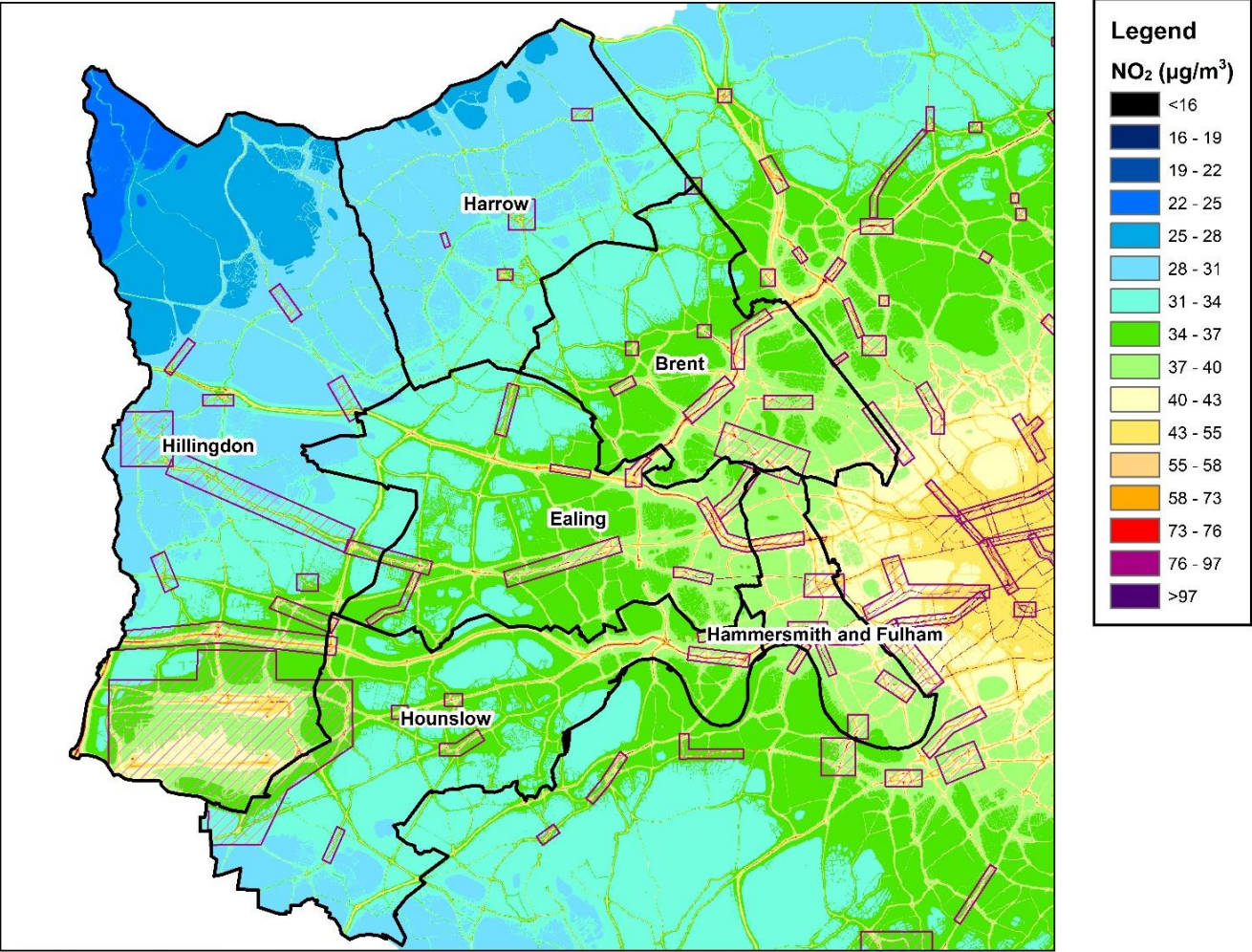
Redbridge and Tower Hamlets have introduced differential costs for parking permits depending on vehicle type. Tower Hamlets local plan D.TR2 will prioritise the needs of pedestrians and cyclists as well as access to public transport including river transport, before vehicle modes of transport.

Public health and awareness raising

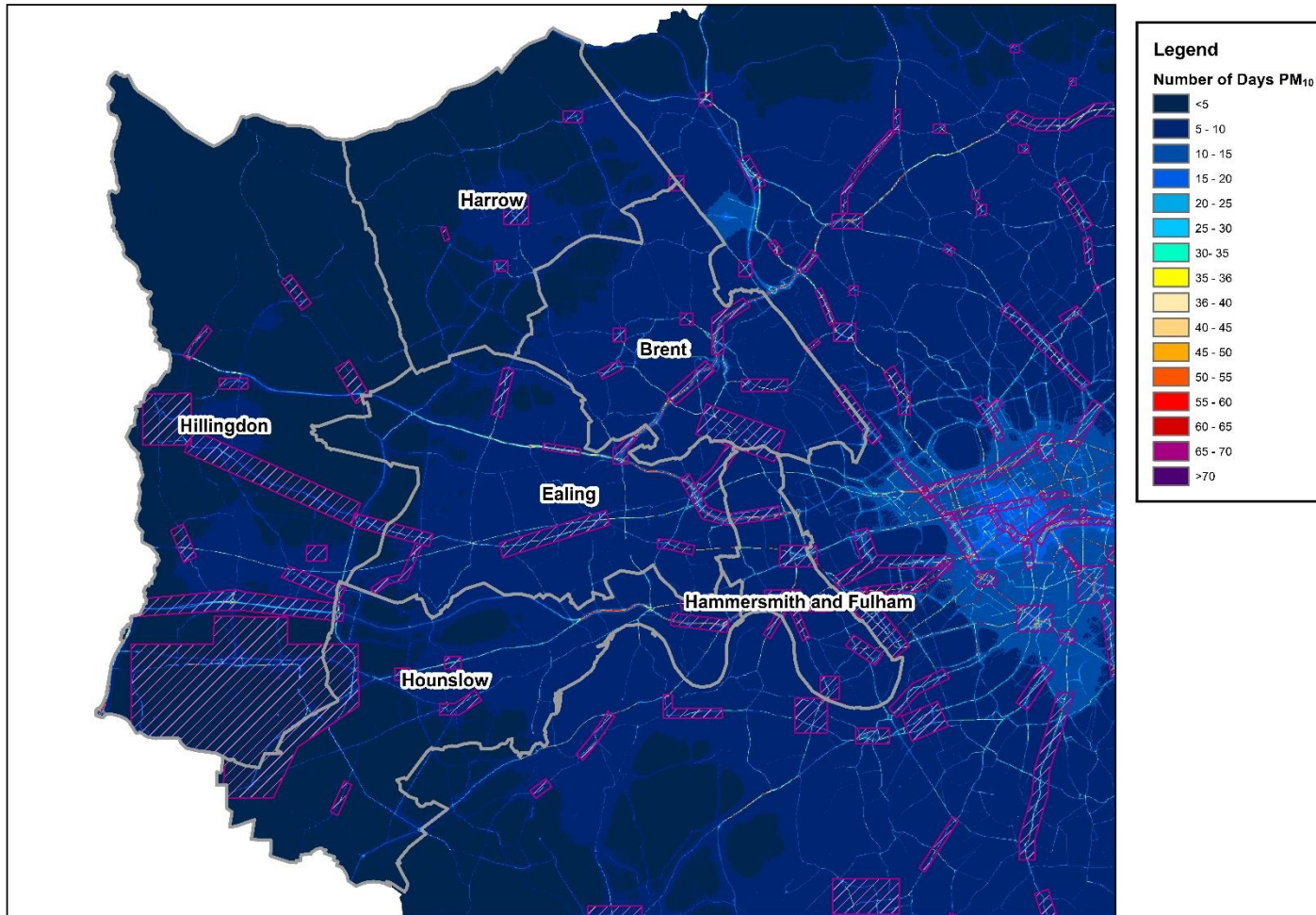
Most East London boroughs engage with local schools and businesses via Zero Emission Network (ZEN) projects, coordinate with public health bodies and continue to promote the London *air*TEXT service. Newham launched the 'Engine Off' campaign, to discourage vehicle idling. Greenwich's air pollution website includes a section 'What can Businesses Do?' which provides information and advice on how businesses can improve air quality, whereas Lewisham is promoting the Lewisham Air App through Lewisham Clinical Commissioning Group (CCG) to raise awareness. Several additional awareness raising campaigns and events have been hosted by boroughs in East London. Anti-idling campaigns have been conducted in Redbridge and Tower Hamlets. Sustrans ran ten 'Learn to Ride' sessions with schools in Barking & Dagenham, and a community bike club and walking group was launched. As part of the "50 Steps to Healthier Newham" strategy the Public Health Department is encouraging and supporting active travel and improved air quality. Finally, Havering actively promotes events such as Bike to School Week, Walk to School Week and Clean Air Day.

West London

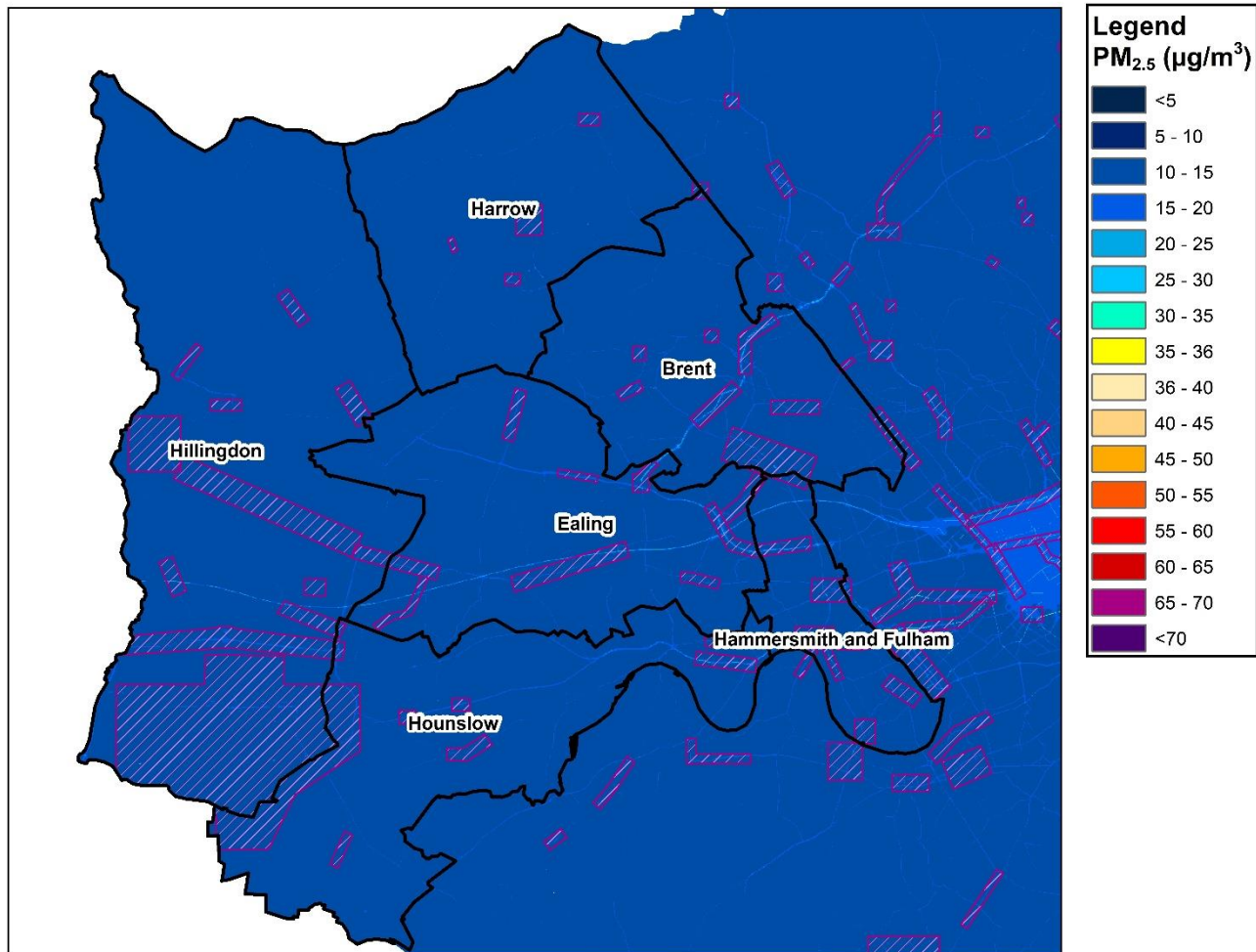
Current air quality focus areas and modelled annual mean NO₂ concentrations (2016)



Current air quality focus areas and modelled number of days exceeding the daily mean PM₁₀ objective (2016)



Current air quality focus areas and modelled annual mean PM_{2.5} concentration (2016)



Source: London Atmospheric Emissions Inventory 2016

Air Quality Summary – West London

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Brent	2017	N	NO ₂ annual PM ₁₀ 24h	7	4	4	2	45	3	0	0	0	0			
Ealing	2018 (being updated)	Y	NO ₂ annual PM ₁₀ 24h	8	4	5	0	57	5	0	0	0	-			
Hammersmith & Fulham	2018	Y	NO ₂ annual PM ₁₀ 24h	6	2	2	1	52	4	0	0	0	0			
Harrow	2021 draft	Y	NO ₂ annual PM ₁₀ 24h	4	2	2	0	4	0	0	0	0	0			
Hillingdon	2019	N	NO ₂ annual	12	11	10	6	44	0	0	0	0	0			
Hounslow	2018	Y	NO ₂ annual	6	7	7	2	49	1	0	0	0	0			

Key

AQAP status	Exceedance status (by pollutant)	COVID-19 Impact on NO ₂	Trends
New AQAP <5yrs old	Below objective	20+%	Clear Improvement – All sites recorded lower concentrations in 2020 compared to 2014 data, with no exceedances in 2020.
AQAP under review	Above objectives but improved or equal to previous years	10-20%	Partial Improvement – Most sites recorded lower concentrations in 2020 compared to 2014 data, however exceedances remain.
AQAP >5yrs old	Above objective at more locations than previous years	<10%	Slight Improvement – Although many sites may show improvement, some sites are recording higher concentrations in 2020 compared to 2014 data.

Key Actions – West London

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Brent	<p>BT4 automatic monitoring station underwent complete replacement and modernisation of equipment. This resulted in a 23% data capture for the year for PM_{2.5} but will ensure robust monitoring in the long-term.</p> <p>-</p> <p>A further 76 diffusion tubes were deployed for monitoring of School Streets and LTN Schemes, though results are not reported and are therefore not counted in this report.</p> <p>-</p>	<p>Through the Sustainable Procurement Policy, the council aspires to review and replace current fleet with low emission models over the next ten years.</p> <p>-</p> <p>In 2021/22 the Council aims to purchase a cargo bike to trail for use in its own operations as well as loan to businesses.</p> <p>-</p> <p>Brent has committed to develop a plan to achieve net zero carbon for the Council's own</p>	<p>Over 2020/2021, thirty extra schools participated in School Street schemes</p> <p>-</p> <p>Five new Healthy (Low Traffic) Neighbourhood schemes implemented with plans for a further four new schemes in 2021 following public engagement</p> <p>The Council plans to develop a Green Infrastructure Vision for Brent for 2030.</p> <p>-</p> <p>The Brent Long Term Transport Strategy is due to be reviewed in 2021, with the aim</p>	<p>In 2021 the Council published a new Sustainable Procurement Policy to ensure sustainability is considered as part of the procurement policy process.</p> <p>-</p> <p>The Council aims to reduce emissions from deliveries.</p> <p>-</p> <p>Brent is working in partnership with Cross River Partnership (CRP), to launch Willesden Green as a Clean Air Village</p> <p>-</p>	<p>All major developments must be air quality positive.</p> <p>-</p> <p>Brent is a member of the MAQF pan-London NRMM project.</p> <p>-</p> <p>Dust management plans are required for all major construction sites.</p> <p>-</p> <p>22 NRMM audits were conducted between January 2020 – March 2021.</p> <p>-</p> <p>The Council is committed to achieving net zero carbon emissions from the</p>	<p>Draft Brent COVID-19 Transport Recovery Plan was developed and consulted on.</p> <p>-</p> <p>Additionally, 34 'Source London' charge points were installed at 12 locations in the borough in October 2020. With an additional 7 chargers installed at three locations in early 2021.</p> <p>-</p> <p>Over 2021/22 the Council will review and update its Air Quality Action Plan, with the Transport Planning team feeding into the</p>	<p>In February 2021, a Health and Wellbeing virtual fair was held with residents, with focus on air pollution.</p> <p>-</p> <p>Brent's Air Quality and Public Health team are developing a plan for sharing air quality alerts to the most vulnerable residents.</p> <p>-</p> <p>As of April 2021, 37 of Brent's schools have STARS accreditation.</p> <p>-</p> <p>In 2021/22 the Council will review and update its Air</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>At a majority of sites, data capture was not significantly impacted by COVID-19.</p> <p>-</p> <p>The initial COVID-19 lockdown is illustrated to have reduced NO₂ concentrations by approximately 20% (without correcting for meteorology) as compared to the same period in 2019.</p> <p>-</p> <p>Undertaking a study of air quality sensors, partnering with Imperial College London to understand the efficacy of a range of sensors.</p>	<p>estate and operations by 2030.</p> <p>-</p> <p>The Council is developing a Staff Travel Plan to encourage the reduction in car usage and adopting active modes of transport.</p> <p>-</p> <p>The Council will start a tender process for the re-procurement of its zipcar fleet with the aim of using low-emission vehicles.</p>	<p>of making the streets safer, greener and more inclusive.</p> <p>-</p> <p>The council aims to expand the tree planting programme, targeting areas of deprivation, poor air quality and canopy cover.</p>	<p>A pilot cargo-bike engagement scheme was delivered in Harlesden town centre in Spring 2021. Several businesses were offered a subsidy to trial cargo bikes in their operations.</p>	<p>Council's own estate and operations by 2030.</p>	<p>process to ensure it aligns with strategies.</p> <p>-</p> <p>In September 2020, the council implemented a new temporary segregated cycling lane between Wembley Triangle and the A406 North Circular Road (approx. 1.5km). We are currently working with TfL on developing a permanent strategic cycle lane on this route</p>	<p>Quality Action Plan, with the Public Health team feeding into the process to ensure it aligns with strategies.</p> <p>-</p> <p>The Council held a social media takeover for Clean Air Day in 2020, sharing information and advice on Air Quality.</p>
Ealing	The initial COVID-19 lockdown is illustrated to have	-	Work to improve pedestrian and cycle access to	Ealing Broadway Business Improvement	The Council aims to mitigate PM ₁₀ and PM _{2.5} emissions from	The Council is improving access to	The School Travel Team promoted Go Green for Clean Air

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>reduced NO₂ concentrations by approximately 20 to 30% compared to pre pandemic levels.</p> <p>-</p> <p>During the initial COVID-19 lockdown PM_{2.5} concentrations were in the order of 2 to 5 µg m⁻³ lower compared to a business-as-usual scenario.</p> <p>-</p> <p>Additional 8 diffusion tubes installed in 2020.</p> <p>-</p> <p>Plans to monitor PM_{2.5} at the Horn Lane location.</p>		<p>Broadway Station was expected to be completed by the end of 2020, however the impact of COVID-19 has resulted in an expected completion of late 2021.</p>	<p>District Air Quality Exemplar project has continued and is fully funded by Ealing BID. Around 9,000 diesel vehicle trips saved each year.</p> <p>-</p> <p>Re-organisation of freight to support consolidation of deliveries by setting up new logistic facilities.</p>	<p>industrial sources and resuspension in Horn Lane, Acton.</p> <p>-</p> <p>In 2020, planning conditions were imposed to control emissions from NRMM; enforce Air Quality Neutral Policies, minimise PM emissions from construction and demolition; and control emissions from CHP and biomass boilers.</p> <p>-</p> <p>In 2020/21 the Council was successful in bidding for £2.9m to retrofit 30 corporate buildings to reduce carbon emissions and decarbonise heating systems. Work to be completed in summer 2021.</p>	<p>public transport across the borough.</p> <p>-</p> <p>In 2020, nine LTNs were installed and a further three LTNs are out for consultation, with implementation expected in 2021.</p> <p>-</p> <p>Work undertaken within WestTrans Partnership to increase EV fleet within car clubs.</p>	<p>Day on 8th October 2020.</p> <p>-</p> <p>Air Quality is now a standing item on the Council's Health Protection Forum.</p> <p>-</p> <p>Engagement with local schools on the STARS programme and the Mayor's air quality audits.</p> <p>-</p> <p>Ongoing engagement with parents and residents surrounding anti-idling measures.</p>
Hammersmith & Fulham	An additional nine diffusion tube sites	All vehicles operating as part of	Work continues on the Hammersmith	The Council worked with	Complaints of dust nuisance investigated as	Emissions based charging for pay and	The Council continues to

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>were implemented in 2020.</p> <p>-</p> <p>Concentrations of NO₂ were approximately 25% lower compared to 2019, which may be related to the COVID-19 pandemic.</p>	<p>the Council's fleet currently meets ULEZ standards.</p> <p>-</p> <p>The Council has installed 14 upgraded charge points for light vehicles and three charge points for HGV at Bagley's Lane depot.</p> <p>-</p> <p>9 enforcement fleet vehicles have been replaced with electric vans.</p>	<p>SPD which is expected to be consulted on before the end of 2021. This will support a switch to zero/low emission vehicles in Hammersmith and facilitate more sustainable energy choices.</p> <p>-</p> <p>In 2020/21, the Council planted 39 new trees on the public highway and replaced 157 street trees.</p> <p>-</p> <p>Dr Bike sessions were postponed due to the COVID-19 pandemic.</p>	<p>Zipcar, Fulham Broadway and Cross River Partnership to launch the first electric van service for small businesses.</p> <p>-</p> <p>The Council was successful in their joint bid with other London boroughs for DEFRA funding for Clean Air Village 4 (CAV4).</p> <p>-</p> <p>South Fulham Traffic, Congestion and Pollution Reduction scheme was introduced in July 2020, which reduced traffic by 75% on</p>	<p>and when reported. 116 complaints were received in 2020 about construction/demolition dust. Informal warning/advice is usually effective in securing improvements.</p> <p>-</p> <p>Continued participation in the MAQF3 NRMM compliance project for the three-year period from 2019 to 2022.</p> <p>-</p> <p>Stage IV NRMM emission standard was required by planning condition on 51 sites during 2020. The borough achieved a Total Compliance status of 87.5% of sites audited under the project.</p>	<p>display was introduced in March 2021.</p> <p>-</p> <p>In 2020, the council installed five rapid charge points, taking the number in the borough to 10.</p> <p>-</p> <p>Significant planning for implementation of an e-scooter scheme completed for launch in June 2021.</p> <p>-</p> <p>Hammersmith Flyover was awarded best EV charging destination 2020, with more than 100 electric vehicles charging each day.</p> <p>-</p> <p>106 children and 223 adults participated in Bikeability and adult cycle training in the</p>	<p>participate in the three-year MAQF 3 'No Idling' project during the period 2019 to 2022.</p> <p>-</p> <p>A sensor was deployed at Charing Cross hospital, with information and data made publicly available.</p> <p>-</p> <p>45 schools have completed School Travel Plans and undertaken school travel surveys, and under the TfL STARS accreditation scheme, 13 have achieved Gold, seven Silver and four Bronze.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
				streets east of Wandsworth Bridge Road and by 12% on Wandsworth Bridge Road itself.		borough throughout the year.	Continued promotion of <i>air</i> TEXT.
Harrow	<p>Existing levels of monitoring maintained, which is very limited in scale.</p> <p>-</p> <p>Diffusion tube data from 2019 and 2020 is missing from the Council's records, therefore not possible to quantify number of exceedances.</p> <p>-</p> <p>The Harrow Air Quality Action Plan was reviewed during 2020 with the aim of</p>	-	<p>The Council intend to introduce an emissions-based parking permit system in 2020. Vehicles with higher CO₂ emissions now pay a higher tariff than newer and more efficient vehicles.</p> <p>-</p> <p>An update to the Council's AQAP is currently underway, with the aim of a new 5-year plan to</p>	-	-	<p>24 new EV charging points were installed in the borough as part of a successful bid to the On-Street Residential Chargepoint Scheme (ORCS).</p>	<p>Participation in the TfL STARS programme, with 23 schools achieving Gold accreditation, 1 Silver. 4 Bronze and 1 working towards accreditation.</p> <p>-</p> <p>There are 58 schools in Harrow registered to participate in Healthy Schools London, 12 of which have</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	expanding current monitoring in the borough.		be published in 2021.				achieved Gold status. - The 2020 car free day was cancelled due to the COVID-19 pandemic.
Hillingdon	<p>Number of diffusion tube sites 44, recommendations of review incorporated to ensure coverage within AQFAs</p> <p>-</p> <p>Number of automatic sites monitoring NO₂, PM₁₀ and PM_{2.5} increased by 1.</p> <p>-</p> <p>The COVID-19 pandemic has had significant impact across the borough, with the implementation of</p>	<p>The Council fleet replacement programme included the upgrade of 77 specialist vehicles to Euro VI, which all meet ULEZ standard.</p> <p>-</p> <p>Electric equipment for the green space's teams is being trialled, estimations of the fuel savings and the emission benefits in terms of local air quality are being calculated.</p>	<p>In 2020/21, 6,250 trees were planted across the borough.</p> <p>-</p> <p>Hillingdon Local Plan Part 2 formally adopted in January 2020.</p> <p>Developments must now be at least Air Quality Neutral and include sufficient mitigation.</p>	<p>All Council contracts stipulate FORS registered and a minimum of EuroVI/6. The specific inclusion of low/zero emissions technologies is expected to be investigated in 2020/2021.</p> <p>-</p> <p>The requirement for delivery and servicing plans to aim for achievement of FORS Gold award</p>	<p>In 2019/20, 100% of planning applications included the construction dust condition. There were 44 investigations of dust and emissions, all were resolved.</p> <p>-</p> <p>In 2020/21 the Council has replaced 266 domestic boilers and addressed 24 commercial boilers.</p> <p>-</p> <p>NRMM report that 16 site audits were untaken with one non-compliant due to an admin issue, lack of</p>	<p>In 2020/21, 409 fines were issued to vehicles idling.</p> <p>-</p> <p>The Council is considering a pilot scheme to install residential on-street charging points.</p> <p>-</p> <p>Consideration is being given for the development of a Borough EV Strategy to include a review of the current EV infrastructure, identification of enhancement opportunities and a</p>	<p>2,100 hedge plants, 700m of screening and 75 trees have been planted at schools in the borough.</p> <p>-</p> <p>10 further schools have been identified to trial the air quality and active travel package.</p> <p>-</p> <p>Continued engagement with TfL STARs programme. Hillingdon now has</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>some planned actions delayed.</p> <p>-</p> <p>NO₂ levels reduced by approximately 40% in 2020 compared to 2019 levels, partly due to the COVID-19 pandemic.</p>	<p>-</p> <p>Permission is being sought for the purchase of eight pool cars which will be low/zero emission technology.</p>		<p>within an agreed timescale will be considered for developments in Air Quality Focus Areas.</p>	<p>registration on the NRMM database however the plant present on-site was all compliant.</p>	<p>communication strategy to highlight the benefits of cleaner vehicles.</p> <p>-</p>	<p>a total of 16 accredited schools.</p> <p>-</p> <p>In 2020/21, the Council used social media throughout the pandemic regarding the use of wood burning stoves and bonfires.</p>
Hounslow	<p>All automatic monitoring sites show a decrease in NO₂ concentrations by approximately 17%, likely due to the COVID-19 pandemic.</p> <p>-</p> <p>Reduction in diffusion tubes sites by six.</p>	<p>A Green Fleet review programme has been set up to measure existing fleet emissions, setting a framework to move towards alternative fuel vehicles and reducing overall council emissions from fleet in 2021 onwards.</p> <p>-</p>	<p>In 2020, the Council adopted the Greener Borough Framework.</p> <p>-</p> <p>The Council approved the introduction of emissions-based parking charges for Pay and Display parking and business permits.</p> <p>-</p>	<p>In 2020, the Council trialled a cargo bike scheme which resulted in 244 deliveries.</p>	<p>NRMM report that 20 site audits were undertaken in 2020, with two sites recorded non-compliant.</p> <p>-</p> <p>A Public Sector Decarbonisation Scheme application was successfully submitted on the 12th October for energy improvements in 33 schools.</p> <p>-</p>	<p>47 new charge points were installed in 2020, a mix of lamp column and floor-mounted charge points.</p> <p>-</p> <p>In 2020, three bike hangers and 21 Sheffield stands were installed.</p> <p>-</p> <p>The Council has eight rapid chargers in the borough, with the</p>	<p>The Council continue to publicise the <i>air</i>TEXT scheme, however they were unable to get sign up figures due to the COVID-19 pandemic.</p> <p>-</p> <p>Due to school closures in response to the COVID-19 pandemic, the TfL decided to roll over STARS accreditation from</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
		The council aims to accelerate uptake of new Euro VI vehicles in borough fleet.	In summer of 2020, street-space schemes were implemented across the borough.		The Council is producing the boroughs Green Infrastructure Strategy, Tree Management Policy and Nature Recovery Action which will be adopted in Autumn 2021.	aim of doubling this in 2021.	2019 to 2020, with the same plan for the current academic year. - Local schools took part in Clean Air Day in October 2020.

Summary – West London

AQ monitoring and other Core Statutory Duties

All boroughs in West London have AQMAs for annual mean NO₂. Brent, Ealing, Hammersmith & Fulham, and Harrow also have AQMAs declared for daily mean PM₁₀. AQMAs are borough-wide except in Brent and Hillingdon. Harrow's diffusion tube data is missing from the Council's records for 2019 and 2020, therefore it is not possible to state with certainty the number of exceedances in the borough.

There continues to be exceedances of the annual mean NO₂ objective across many of the boroughs, with the exception of Hillingdon, where no exceedances were recorded for the first time. There were no recorded exceedances of the one hour mean NO₂ objective in any of the West London boroughs. Concentrations of NO₂ showed a significant decrease compared to the 2019. That said, there continues to be exceedances of the annual mean NO₂ objective even with the lockdowns in 2020, so there is work left to do for the boroughs to improve air quality.

There have been no exceedances of the annual mean PM₁₀ objective and there has been a clear improvement in short-term PM₁₀ concentrations in the last seven years in all boroughs, with no boroughs experiencing an exceedance of the daily PM₁₀ objective.

PM_{2.5} is monitored at eleven automatic sites in West London. Six monitoring sites are within Hillingdon (four at Heathrow Airport, one roadside site and one urban background site). Brent carried out PM_{2.5} monitoring at two roadside sites, and PM_{2.5} monitoring commenced at two sites in Hounslow in 2017. Hammersmith & Fulham also monitors PM_{2.5} at one site. PM_{2.5} monitoring has historically taken place at one site in both Harrow and Ealing, but this ceased in 2017 and 2016 respectively.

All boroughs in West London have up to date AQAPs, with the exception of Harrow, however it is noted that Harrow's AQAP is currently under review and a new 5-year plan is expected to be adopted in 2022. Ealing are also scheduled to update their AQAP in the near future.

Borough fleet actions

All West London boroughs have declared they have measures in place targeting fleet improvements with the exception of Ealing. Brent and Hammersmith & Fulham have either planned to, or have already, purchased vehicles that meet the standards of ULEZ through the development of their own respective Green Fleet Policies. Hillingdon upgraded 77 of its specialist vehicles to Euro VI, all of which meet ULEZ standards. In 2019, Harrow upgraded their Council fleet to Euro 6 standard as a minimum, also adding sixteen EVs plus three hybrid diesels to their fleet. Hounslow has set up its Green Fleet review programme aiming to reduce emissions from their fleet from 2021 onwards, through accelerating the uptake of new Euro VI vehicles.

Localised solutions

All reporting boroughs are committed to various local projects. Brent are developing a Green Infrastructure Vision for 2030, while Ealing were forced to delay their scheduled works to improve pedestrian and cycle access to Broadway station due to the COVID-19 pandemic.

Hammersmith & Fulham continue to work on the Hammersmith SPD, which will support a switch to zero/low emission vehicles and facilitate more sustainable choices. Harrow started to introduce an emissions-based parking permit system dependant on vehicle type in 2020, and an update on these is expected in the coming ASR. The Hillingdon Local Plan Part 2 was formally adopted in January 2020, reinforcing the requirement for all developments to be at least Air Quality Neutral and include sufficient mitigation. Hounslow have followed in the path of Brent, Hammersmith & Fulham and Harrow in introducing emissions-based parking charges for Pay and Display parking and business permits. Brent, Hammersmith & Fulham and Hillingdon have all also planted more trees across their boroughs in 2020. Hillingdon made a successful bid to the TfL fund for emergency active travel improvements, and actions were taken across the borough to provide improvements to pedestrian and cycling infrastructure, including upgrading the Grand Union Canal towpath. This is a key pedestrian and cycle route through the borough linking significant public transport hubs such as the Crossrail stations at Hayes and Harlington and West Drayton plus a link through to Uxbridge, the borough's Metropolitan town centre. In partnership with the Canal and Partnership Trust there is now over 3km of canal towpath upgraded to Quietways standard. The application of the Quietways standard ensures a safer, smoother towpath and the chosen surface has a life expectancy of around 15 years.

Delivery servicing and freight

Many West London boroughs have provided limited information on the measures they have been taking with regard to delivery servicing and freight. Brent published a new Sustainable Procurement Policy to ensure sustainability is considered as part of the procurement policy process, while Ealing Broadway Business Improvement District Exemplar project has continued, saving around 9000 diesel trips each year. Hammersmith & Fulham worked with Zipcar, Fulham Broadway and Cross River Partnership throughout 2020 to launch the first electric van service for businesses. In Hillingdon, all Council contracts stipulate vehicles must be FORS registered and a minimum of Euro VI/6, while Hounslow trialled a cargo bike scheme, and Brent ran a cargo bike engagement trial in Harlesden.

Emissions from development and buildings

Regulations for construction and compliance with the NRMM LEZ have continued to be enforced by Brent, Ealing, Hammersmith & Fulham, Hillingdon and Hounslow. Dust pollution from development sites has been monitored in Hillingdon using indicative monitoring to determine the levels of dust pollution emitted, and similarly 116 dust complaints reported in Hammersmith & Fulham were investigated.

Hillingdon has upgraded 266 domestic boilers plus an additional 24 commercial boilers serving communal areas in the borough, and in Ealing controlling emissions from CHP and biomass boilers has been prioritised. Hounslow were successful in applying for energy efficiency improvements in 33 schools, while Ealing were successful in bidding for £2.9m to retrofit 30 corporate buildings to reduce carbon emissions and decarbonise heating systems. Other notable measures include Brent requiring all developments to be air quality positive in line with the New London Plan, and in Hammersmith & Fulham the stage IV NRMM emission standard was required by planning condition on 51 sites in 2020. Air Quality Neutral (as a minimum) policies across all West London boroughs were also enforced.

Cleaner transport

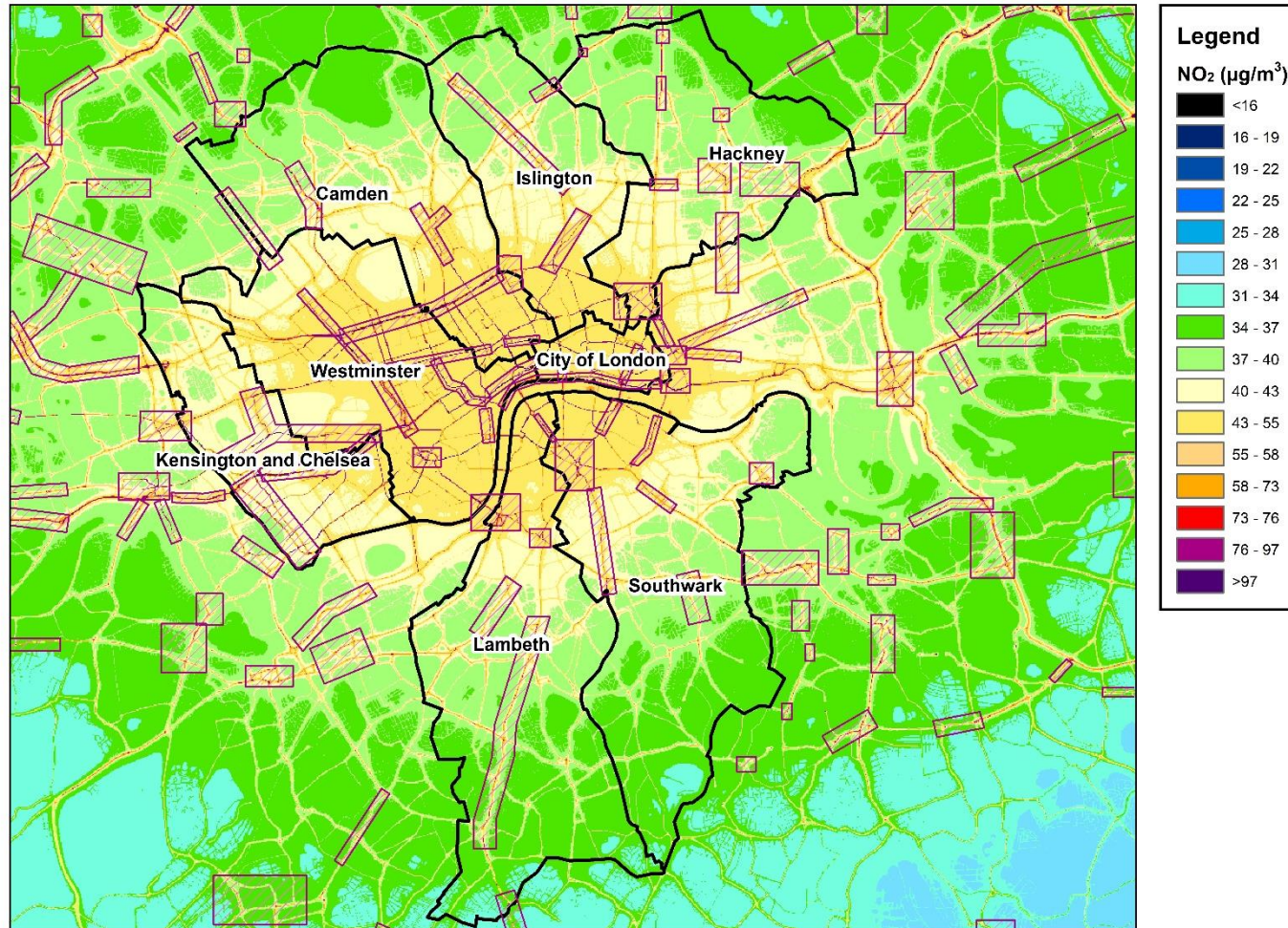
The boroughs in West London all have measures that target an increased use of sustainable transport through providing the relevant infrastructure or encouraging the use of other methods of transport. Brent installed 34 'Source London' charge points at 12 locations in the borough, and has rolled out over thirty emergency school streets and five LTNs, with a further four planned. Ealing installed nine LTNs and a further three LTNs are expected to be implemented in 2021. Harrow installed 24 new EV charging points in the borough as part of a successful bid to the On-Street Residential Chargepoint Scheme. Hammersmith & Fulham installed five rapid charge points in the borough taking the number to ten, while the Hammersmith Flyover was awarded best EV charging destination 2020. Hillingdon issued 409 fines to vehicles idling in the borough in 2020/21, while Hounslow installed 47 new charging points in addition to three bike hangers and 21 Sheffield stands.

Public health and awareness raising

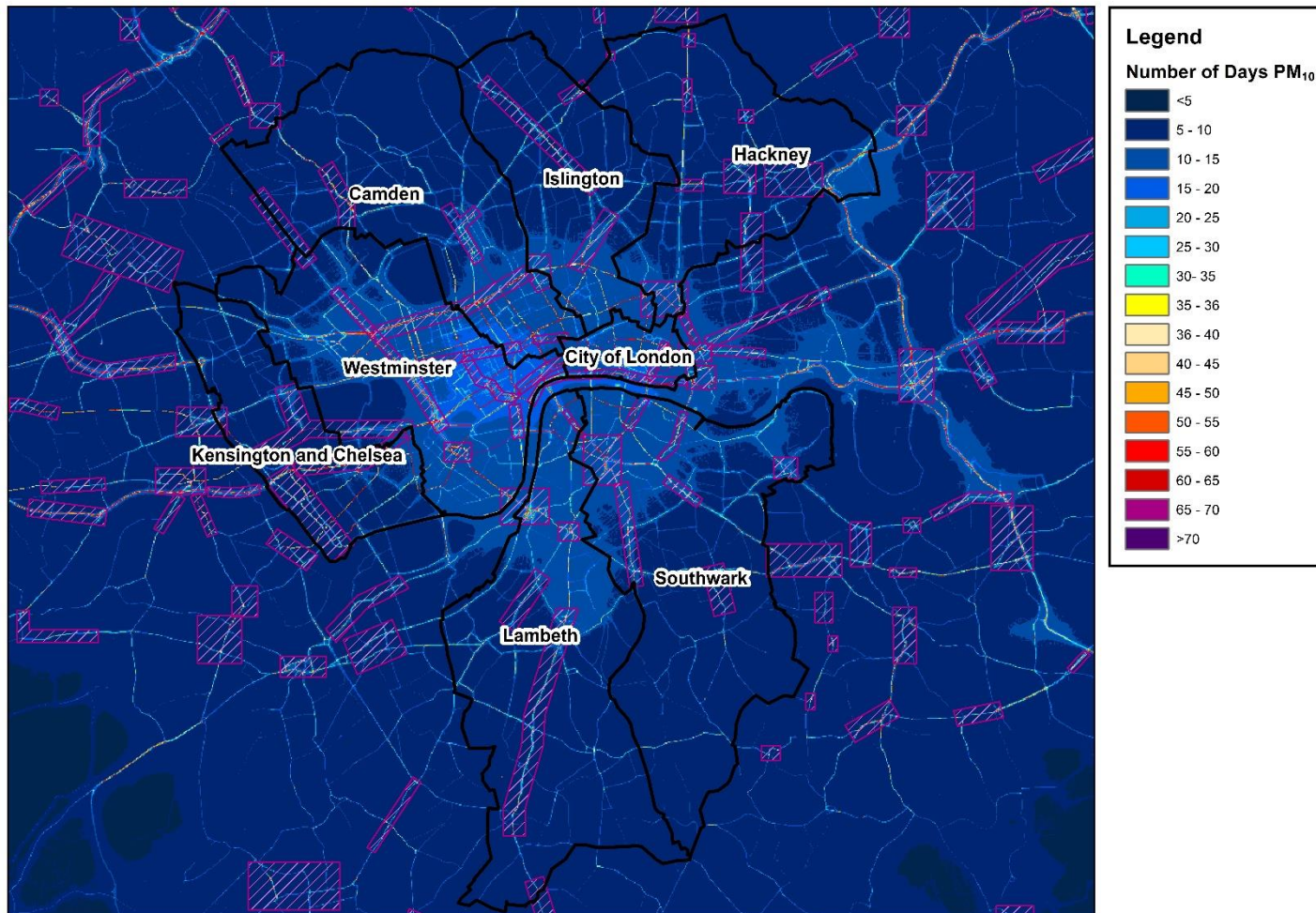
Raising awareness of poor air quality is a major priority in most West London boroughs. All boroughs are engaging with schools on the TfL STARS travel planning scheme and through air quality audits, however Hounslow have rolled over STARS accreditation from 2019 to 2020 due to the COVID-19 pandemic. Hammersmith & Fulham, Hounslow and Brent continue to promote the London *air*TEXT service. Hillingdon used social media throughout the pandemic regarding the use of wood burning stoves and bonfires. Brent held a social media takeover for Clean Air Day 2020, while the School Travel Team in Ealing promoted Go Green for the day. Brent held a Health and Wellbeing virtual fair with residents, with a focus on air pollution, whereas Hammersmith & Fulham deployed a sensor at Charing Cross hospital, with the information made publicly available. Ealing are engaging with parents and residents surrounding anti-idling measures, and in Hillingdon ten further schools have been identified to trial the air quality and active travel package. In Harrow, 58 schools are now registered to participate in Heathy Schools London, 12 of which have achieved gold status.

Central London

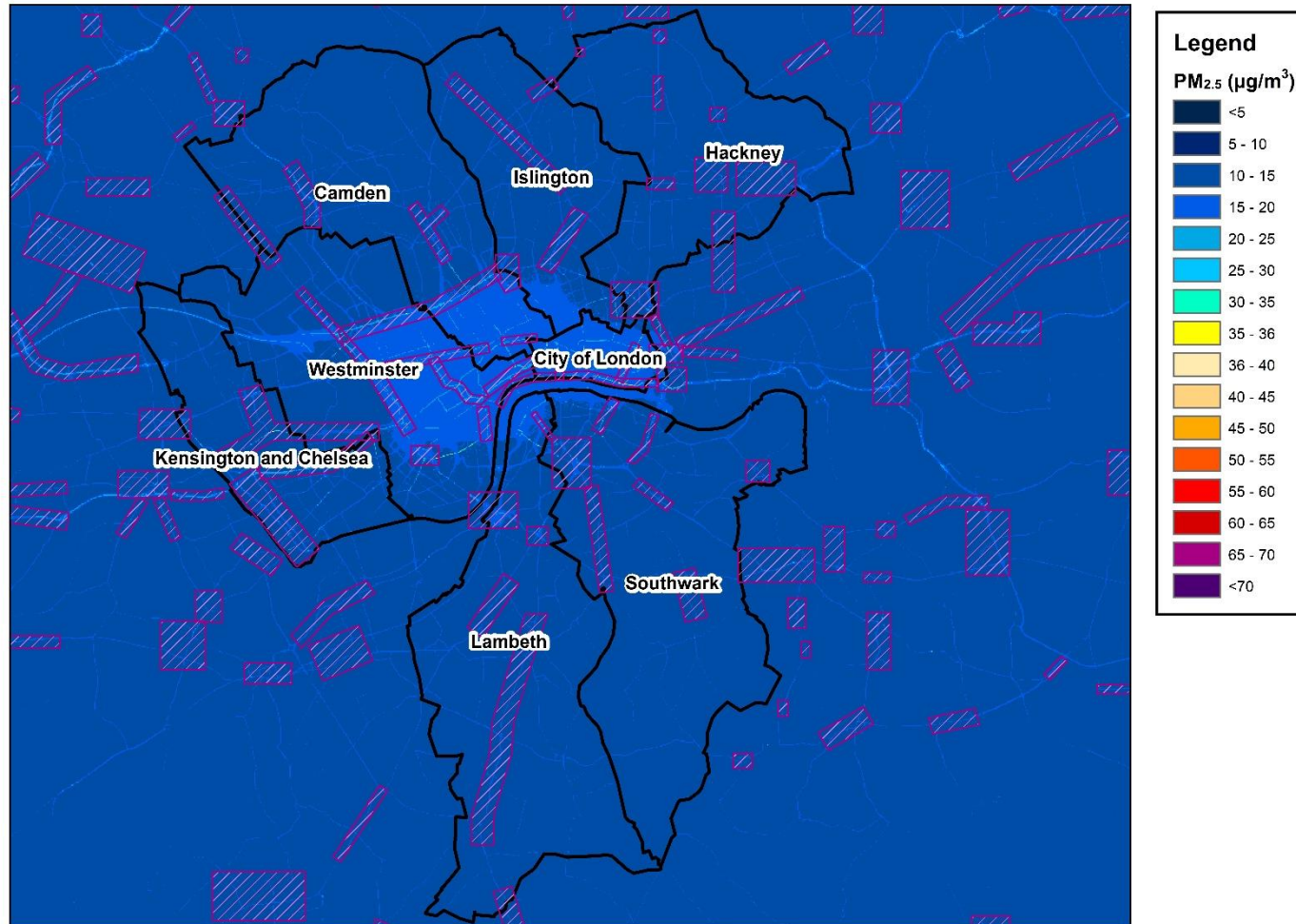
Current air quality focus areas and modelled annual mean NO₂ concentrations (2016)



Current air quality focus areas and modelled number of days exceeding the daily mean PM₁₀ objective (2016)



Current air quality focus areas and modelled annual mean PM_{2.5} concentration (2016)



Source: London Atmospheric Emissions Inventory 2016

Air Quality Summary – Central London

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Southwark	2017	N	NO ₂ annual PM ₁₀ 24h	7	4	4	4	83	0	0	0	0	0			
Kensington & Chelsea	2016	Y	NO ₂ annual/1h PM ₁₀ annual/24h	3	5	3	1	75	19	0	0	0	0			
Islington	2019	Y	NO ₂ annual/1h PM ₁₀ 24h	4	2	2	0	21	0	0	0	0	-			
Lambeth	2017	Y	NO ₂ annual PM ₁₀ annual/24h	5	3	3	0	112	9	0	1*	1*	-			
City of London	2019	Y	NO ₂ annual/1h PM ₁₀ 24h	3	3	3	2	83	6	0	0	0	0			
Camden	2019	Y	NO ₂ annual PM ₁₀ 24h	5	3	4	3	32	5	0	0	0	0			

Borough	AQAP Date	AQMA		Focus Areas	No. automatic sites			No. diff tube sites	Measured exceedances in 2020					COVID-19 Impact on NO ₂	7-year trend	
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}		NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5} Annual		NO ₂	PM ₁₀
Westminster	2019	Y	NO ₂ annual/1h PM ₁₀ annual/24h	8	11	5	3	27**	2	0	0	0	0			
Hackney	2020 (consultation)	Y	NO ₂ annual/1h PM ₁₀ 24h	8	1	1	1	209	12	0	0	0	0			

*Localised contamination from vent, readings are not representative of PM₁₀ in the area.

**Not installed until November 2022, so annual mean results not reported

Key

AQAP status	Exceedance status (by pollutant)	COVID-19 Impact on NO ₂	Trends
New AQAP <5yrs old	Below objective	- 20+%	Clear Improvement – All sites recorded lower concentrations in 2020 compared to 2014 data, with no exceedances in 2020.
AQAP under review	Above objectives but improved or equal to previous years	- 10-20%	Partial Improvement – Most sites recorded lower concentrations in 2020 compared to 2014 data, however exceedances remain.
AQAP >5yrs old	Above objective at more locations than previous years	- <10%	Slight Improvement – Although many sites may show improvement, some sites are recording higher concentrations in 2020 compared to 2014 data.

Key Actions – Central London

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Southwark	<p>COVID-19 had a limited impact on overall data capture. However primary school locations, managed by the schools themselves, saw data capture rates of 42%.</p> <p>-</p> <p>PM_{2.5} was monitored for the first time in 2020. COVID-19 delayed installation of monitors, resulting in low data capture for the year.</p> <p>-</p> <p>A fourth automatic monitoring station was installed and monitoring equipment at Old Kent Road and</p>	<p>Since Autumn 2020 all fleet vehicles procured have gone through a full sustainability evaluation.</p> <p>-</p> <p>Guidance on mileage and efficiency published.</p>	<p>Several LTN's were introduced, and pavement widening was implemented to facilitate walking.</p> <p>-</p> <p>'School Streets' has been expanded to cover 25 schools in the borough.</p> <p>-</p> <p>Air quality audits were undertaken at primary schools in the borough.</p> <p>-</p> <p>Increased green infrastructure including 36 modal filters, 51 uncontrolled crossings and 10 controlled crossings.</p> <p>-</p>	<p>Joined with Pedal-Me to deliver goods to residents from local businesses.</p>	<p>Ongoing work to ensure all major developments meet the Air Quality Neutral standards.</p> <p>-</p> <p>The Housing and Modernisation Department installed 1,800 ultra-low NO₂ boilers during 2020.</p> <p>-</p> <p>The New Southwark Plan is due for adoption in August 2021.</p>	<p>Worked with Team London Bridge to publicise events to encourage walking and cycling and compile a directory of businesses that deliver with cargo bikes.</p> <p>-</p> <p>Ongoing work to expand EV charging point network.</p> <p>-</p> <p>Implementation of low emission bus zones in the borough has been completed.</p> <p>-</p> <p>A diesel surcharge for on street residential/business parking</p>	<p>Funding was secured to instigate a digital discovery project to improve the uptake of <i>air</i>TEXT.</p> <p>-</p> <p>Council website updated with relevant air quality information.</p> <p>-</p> <p>Ran anti-idling public awareness campaign.</p> <p>-</p> <p>Engagement continued with TfL STARS programme .</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>Elephant and Castle was replaced.</p> <p>-</p> <p>Worked with TfL's Tunnel Team and Tower Hamlets officers to monitor air quality in the tunnel and around the tunnel vents and portals.</p> <p>-</p> <p>The COVID-19 pandemic resulted in a reduction in NO₂ concentrations by approximately 25%, with the annual mean AQO met at all sites for the first time in several years.</p>		<p>1.8km of cycle route, 13 cycle spaces on street and 52 cycle hangars were installed.</p> <p>-</p> <p>100% of bonfire complaints were replied to.</p> <p>-</p> <p>Funding secured from Impact on Urban Health (£250k) to deliver healthy streets projects in three neighbourhoods.</p>			<p>permits is now applied to all vehicles which are not ULEZ compliant.</p> <p>-</p> <p>TfL installed cycle hire throughout the borough.</p>	
Kensington & Chelsea	<p>30 additional diffusion tubes were deployed in 2020.</p> <p>-</p> <p>New monitoring equipment was</p>	<p>25 workplace charging points were installed at four Council locations/offices as part of</p>	<p>138kWp of solar panels have been installed at Westway Sports Centre in August 2020 (more than 500 solar panels).</p>	<p>Continuation of the Clean Air Village Project, which is now in its third iteration, to deliver improvements in air quality in south</p>	<p>The Chelsea Old Town Hall energy efficiency project has now been competed.</p> <p>-</p> <p>A Carbon Neutral Pathways report was</p>	<p>Ongoing work on the White City Opportunity Area and Norland and Notting Barns wards pedestrian</p>	<p>Continued promotion of <i>airTEXT</i>.</p> <p>-</p> <p>In 2021 the Climate Change Council</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>purchased to replace old and failing existing monitors.</p> <p>-</p> <p>Monitoring data capture was not impacted by the COVID-19 pandemic, though some sites were not installed until later in the year.</p> <p>However, an air quality officer could not be hired for the year.</p> <p>-</p> <p>During the 2020 Covid-19 lockdown concentrations of roadside NO₂ decreased by approximately 20%. This trend was not seen for PM₁₀ and Ozone increased.</p>	<p>delivering the Council's Green Fleet Strategy.</p> <p>-</p> <p>The entire Council fleet is now ULEZ compliant.</p>	<p>-</p> <p>Support of GLA's Solar Together Phase to provide solar panels at competitive prices.</p> <p>-</p> <p>A paid community champion role has been created to aid in delivering the North Kensington Community Energy project.</p> <p>-</p> <p>Ongoing work promoting green infrastructure, such as 'The Bee Superhighway'</p> <p>-</p> <p>The entire borough remains a Smoke Control Area.</p> <p>-</p> <p>Trials of 8 new School Street closures.</p>	<p>Kensington. Cromwell Road area has been selected as the newest 'village'.</p>	<p>commissioned outlining how to reduce emissions.</p> <p>-</p> <p>In 2020/21 the carbon emissions from street lighting reduced by 2,226 tonnes.</p> <p>-</p> <p>A hydrogen fuel cell boiler is being trialled in a pilot property on Lancaster West.</p> <p>-</p> <p>Treadgold House has received funding through the MustBe0 project, of which a requirement is the removal of gas by October 2022.</p> <p>-</p> <p>Adoption of the Greening SPD in spring 2021.</p>	<p>and cycle underpass.</p> <p>-</p> <p>Emissions based parking prices to encourage cleaner vehicles.</p> <p>-</p> <p>112 lamp column chargers, 40 new Source London charging points and three rapid chargers were installed.</p> <p>-</p> <p>Five routes in the borough which operate with fully electric vehicles, (routes 70, 94, 360, C1 and C3).</p>	<p>published a new Green Plan.</p> <p>-</p> <p>Paid community champions role created to support with delivering the North Kensington Community Energy.</p> <p>-</p> <p>117 telephone consultations about home energy were delivered since March 2020.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
Islington	<p>Existing monitoring network maintained. Data capture was above 75% at all sites.</p> <p>-</p> <p>NO₂ concentrations measured below 40µg/m³ at all sites for the first time.</p> <p>-</p> <p>COVID-19 likely contributed to reductions in NO₂, with approximate reduction in concentrations of 25%.</p> <p>-</p> <p>Air Quality monitored outside every school and nursery in the borough.</p>	<p>Council fleet continued to be replaced with cleaner vehicles, including two electric refuse collection vehicles. 15 more fully electric vehicles due for delivery in 2021.</p> <p>-</p> <p>Ongoing work to upgrade EV charging infrastructure. On track to deliver 400 on street EV charging points by end of 2022.</p>	<p>Expansion of cycle lane network.</p> <p>-</p> <p>Working with TfL to make Old Street more pedestrian and cycle friendly.</p> <p>-</p> <p>390 trees were planted on public land in the tree planting season (November 2020 to March 2021). £500,000 funding was secured in 2020/21 for tree planting from 2021-23.</p> <p>-</p> <p>Ongoing work on the Canal Eco Zone.</p> <p>-</p> <p>£1M Good Growth Fund funding secured to deliver the Chapel Market</p>	<p>Extended the Cleaner Deliveries, Smarter Businesses project, engaging with 121 businesses in the three months.</p> <p>-</p> <p>Continued to use the freight consolidation scheme in 2020.</p> <p>-</p> <p>Cargo bikes were promoted throughout town centre groups across the borough to support rollout of People Friendly Streets.</p>	<p>19 Islington households were referred to the ECO/Warmer Homes scheme for heating and insulation improvements, through the SHINE service for vulnerable residents.</p> <p>-</p> <p>The Bunhill Heat Network scheme was launched, using heat from underground trains to heat properties on the network.</p> <p>-</p> <p>Modifications to Islington's Draft Local Plan submitted, requiring all major developments to be at least air quality neutral.</p> <p>-</p>	<p>Seven Low Traffic Neighbourhoods (LTNs) were designed and delivered.</p> <p>-</p> <p>Further reallocation of space from parking to cycleways and pedestrian facilities.</p> <p>-</p> <p>Communicate information about the ULEZ expansion to residents through council webpage.</p> <p>-</p> <p>An increase in the surcharge for diesel vehicles in short stay carparks.</p> <p>-</p> <p>Street Environment</p>	<p>In 2020, Clean Air For Schools Toolkit was created to help schools assess how they can improve air quality.</p> <p>-</p> <p>Cleaner air quality poster competition for schools as part of 'Car Free Day'.</p> <p>-</p> <p>Ran an Anti-idling campaign, including online anti-idling sessions with schools.</p> <p>-</p> <p>Ongoing support of MAQF Healthy Streets Everyday scheme.</p> <p>-</p> <p>The number of subscribers to <i>air</i>TEXT increased by 31, taking the total number to 730.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
			<p>Inclusive Economy project, which will improve air quality by reducing traffic and supporting a shift in behaviour.</p> <p>-</p> <p>22 additional School Streets were implemented, bring the total to 25.</p>		<p>As part of the NRMM scheme, construction site audits were completed.</p>	<p>Services procured six E-Bikes in 2020 for their supervisors.</p> <p>-</p> <p>A bike pool scheme launched for Council staff.</p>	<p>Engagement with Defra funded Clean Air Villages.</p>
Lambeth	<p>65 diffusion tubes were added to the existing monitoring network.</p> <p>-</p> <p>11 Breathe London AQ monitors were installed across five Primary School locations in the borough. Half of the participating locations also had School Street schemes.</p> <p>-</p>	<p>Issued payment cards that enable EV charging across multiple charging point providers, with the aim of increasing access to EV charging.</p>	<p>Successfully applied to DEFRA's Air Quality Grant Scheme, to deliver their Clean Air Villages 4 programme.</p> <p>-</p> <p>Green Screen to be installed at Guy's and St Thomas Day Nursery, which is exposed to pollution from a major road.</p> <p>-</p>	<p>As part of Cross River Partnership's Clean Air Villages 2 Project, Lambeth, ZipCar and Brixton BID provided an electric van to Brixton businesses, to minimise emissions from deliveries.</p>	<p>Ongoing engagement with the South Bank and Waterloo Neighbourhood Plan.</p> <p>-</p> <p>Ongoing engagement with pan-London NRMM project. A Lambeth Sustainability Officer has undergone training on auditing NRMM on construction sites.</p> <p>-</p> <p>New Local Plan will discourage the use of</p>	<p>Continued to use CIL to fund our electric charging points for ice cream vans</p> <p>-</p> <p>Sustrans delivered the 'Bike It' behaviour change programme to 12 schools, with a total of 114 activities delivered.</p> <p>-</p> <p>Installation of EV charging points. 183 lamp-column</p>	<p>Sustainability officers held workshops to raise awareness of air pollution and minimise energy consumption at home.</p> <p>-</p> <p>Supported a campaign led by Global Action Plan to measure and raise awareness of air quality improvements registered during lockdown across Lambeth and Southwark.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>Working to assess exposure to PM_{2.5} across the borough with funding from the Mayors Resilience Fund.</p> <p>-</p> <p>COVID-19 resulted in an inability to change diffusion tubes between march and august. Therefore, data capture was <75% at all sites and annualisation was required.</p> <p>-</p> <p>NO₂ concentrations reduced by approximately 15%, which is attributed to the COVID-19 pandemic.</p>		<p>A Living Wall was installed at St Anne’s Primary School.</p> <p>-</p> <p>In Spring 2021, a number of street sweepers will be tested on roads in Lambeth and Southwark.</p> <p>-</p> <p>19 new School Streets implemented bringing total to 21.</p>		<p>CHP in line with the New London Plan.</p> <p>-</p> <p>Awarded £31.5k from DEFRA Air Quality Grant Scheme 2020/21, to map PM_{2.5} concentrations generated by woodburning in residential areas.</p> <p>-</p> <p>Joined a woodburning working group to tackle woodburning in London boroughs.</p> <p>-</p> <p>Between August 2019–March 2021, 1,026 boilers were upgraded.</p> <p>-</p> <p>Worked with King’s College Hospital to minimise the pollution generated by its operations.</p>	<p>existing charge points with a further 65 installed.</p> <p>-</p> <p>Implemented five Low Traffic Neighbourhoods as part of the COVID Transport Response.</p> <p>-</p> <p>Expansion of Santander bikes.</p> <p>-</p> <p>Diesel surcharge for on street paid parking implemented.</p> <p>-</p> <p>Started to issue fines for idling vehicles in May 2020.</p>	<p>Engagement with National Clean Air Day and Clean Air Week. A public webinar was delivered as part of this.</p> <p>-</p> <p>Promotion of <i>airTEXT</i>.</p> <p>-</p> <p>Lambeth Active Travel Team used walking app “Go Jauntly” to provide an app- based version of Secret Lambeth walks.</p> <p>-</p> <p>Engagement with STARS Schools programme.</p> <p>-</p> <p>Anti-Idling Campaign, which included delivering anti-idling event at Igra Primary School.</p> <p>-</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
							Climate Change and Sustainability Team launched Net Zero Heroes, an awareness campaign.
City of London	<p>General maintenance of monitoring network, including replacement of outdated equipment. Slight reduction in number of diffusion tube sites.</p> <p>-</p> <p>COVID-19 resulted in 55 passive tubes requiring annualising. All automatic monitoring had data capture of over 75%.</p> <p>-</p> <p>An AirNode sensor was installed at Aldgate school to</p>	<p>Ongoing work to reduce fleet size and expand the number of electric vehicles.</p> <p>-</p> <p>Five all electric refuse collection vehicles purchased for refuse collection.</p>	<p>Temporary on-street measure such as increased cycle parking and pedestrian priority streets were implemented as a response to the COVID-19 pandemic.</p> <p>-</p> <p>Sponsored an MSc student to work on a thesis to evaluate the effectiveness of the City Corporation citizen science air quality monitoring programme.</p> <p>-</p> <p>Part of the Cross River Partnership's Clean Air Village</p>	<p>For deliveries within five miles, the new Courier Contract requires the use of zero emissions transport, e.g. Cargo bikes.</p> <p>-</p> <p>Four sites have been proposed for use as last mile logistics hubs, with London Wall Car Park appointing Amazon as the operator for a logistic hub covering part of the car park.</p>	<p>Energy Audits were completed in 7 buildings. Gas consumption and NOx emissions had decreased by 18% from 2019.</p> <p>-</p> <p>Climate Action Strategy published in November 2020.</p> <p>-</p> <p>Combustion plants are required to meet NOx emissions standards.</p> <p>-</p> <p>All major developments must submit an Air Quality Neutral Assessment.</p> <p>-</p>	<p>EV charging infrastructure plan developed and new charging points installed.</p> <p>-</p> <p>All buses that run through the City are either zero emission, hybrid and meet Euro VI emission criteria.</p> <p>-</p> <p>Ongoing work to secure long and short-term cycle parking.</p> <p>-</p> <p>Introduction of a Penalty Charge Notice for the offence of</p>	<p>Promotion of <i>air</i>TEXT and the CityAir App. Held an awareness event for London Local authority officers and industry members regarding 'Improving Air Quality through procurement in the Public Sector'.</p> <p>-</p> <p>Implementing several of the MAQF projects including the Pan London Idling Action Project, NRMM project and the Clean Air Thames project.</p> <p>-</p> <p>'Air Quality Ambassador' scheme was put in place to train individuals to run</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>measure ambient air quality.</p> <p>-</p> <p>NO₂ concentrations reduced by approximately 40% during the COVID-19 lockdown and remained low throughout the year.</p>		<p>(CAV) 3 programme from April to March 2021.</p> <p>-</p> <p>The Beech Street zero emission street pilot was developed and went live in March 2020.</p> <p>-</p> <p>The 'Smoke Control from Food Premises' factsheet was made available on the Councils webpage.</p>		<p>Commissioned a guide to low emission and alternative technology and fuels, available to construction sites.</p> <p>-</p> <p>A Webinar covering the combustion plant best practice recommendations for Facilities Managers and Operators was held in October 2020.</p> <p>-</p> <p>Barts Health NHS Trust was issued with an environmental permit to operate the energy centre in 2020.</p>	<p>unnecessary engine idling.</p> <p>-</p> <p>Emissions based parking charges for on street parking.</p>	<p>air quality events in their communities.</p> <p>-</p> <p>Introduction of ULEZ was widely publicised.</p> <p>-</p> <p>Council took part in a two-week virtual campaign to celebrate Car Free Day.</p> <p>-</p> <p>For Clean Air Day 2020, we held an online webinar for businesses promoting the new 'Personal Exposure Toolkit'.</p>
Camden	<p>Continued monitoring. In 2020 a PM_{2.5} sensor was installed.</p> <p>-</p>	<p>On track to achieve a fully zero-exhaust emission capable or biomethane fleet by 2022.</p>	<p>Replacement and removal of parking spaces and the installation of additional cycle</p>	<p>Ongoing promotion of freight consolidation centre through the Defra-funded</p>	<p>Ongoing work reviewing construction management plans, alongside compliance</p>	<p>Four rapid Electric Vehicle Charge Points (EVCPs) installed during 2020.</p>	<p>Designed and produced an online e-form to enable members of the public to report concerns about air pollution.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>Monitoring took place at a total of 174 diffusion tube sites, up from 147 in 2019.</p> <p>-</p> <p>A real time PM_{2.5} sensor was installed on Swains Lane but results not reported.</p> <p>-</p> <p>A new automatic NO₂ monitoring site was installed on Camden High Street but not commissioned until 2021.</p> <p>-</p> <p>Monitoring undertaken for 19 distinct transport and public realm projects.</p> <p>-</p> <p>COVID-19 resulted in data capture below 75% at some</p>		<p>storage to facilitate cycling.</p> <p>-</p> <p>Three additional Healthy School Streets were implemented during 2020.</p> <p>-</p> <p>Continued work with Canal & River Trust to deliver the GLA Good Growth Fund Camden Electric Moorings project.</p> <p>-</p> <p>A green wall and planters have been installed on North Gower Street and Westminster Kingsway.</p> <p>-</p> <p>Euston Green Link, a green walkway, now completed.</p> <p>-</p>	<p>Cross River partnership CAV 3 programme.</p> <p>-</p> <p>The borough has signed up to the Clean Van Commitment which supports lower-emissions vehicles and offers training to drivers.</p> <p>-</p> <p>An e-cargo bike is being used for zero-emission delivery from the boroughs freight consolidation centre.</p> <p>-</p> <p>Smart Grid technology has been installed at the Kentish Town depot, which allows for a fully-EV fleet.</p>	<p>and enforcement issues at active sites.</p> <p>-</p> <p>Participation in NRMM compliance project.</p> <p>-</p> <p>Business focused workshop held to promote Camden Climate Fund to businesses in LEN area.</p> <p>-</p> <p>Smoke control regulations communication through the boroughs 'Improving Indoor Air Quality: Advice for Homes'.</p> <p>-</p> <p>Great Ormond Street Hospital continues to successfully implement the Clean Air Hospital Framework.</p>	<p>-</p> <p>The Diesel surcharge for residential parking permits was increased.</p> <p>-</p> <p>Camden co-leads the Idling action London with City of London Corporation. Camden's Traffic Management Order (TMO) is now in full use, 2,000 idling drivers were instructed to switch off their engines and 52 penalty charge notices were issued.</p> <p>-</p> <p>Successfully implemented a number of active travel transport schemes, including</p>	<p>-</p> <p>Continued promotion of TfL's STARS school's programme.</p> <p>-</p> <p>Ongoing work with 'The Sustainers' steering group for school pupils to promote air quality issues and climate change.</p> <p>-</p> <p>The borough's Joint Strategic Needs Assessment updated in 2021.</p> <p>-</p> <p>Promotion of <i>airTEXT</i></p> <p>-</p> <p>Delivered the Clean Air for Camden engagement programme. And shared 'Improving Indoor Air Quality:</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>sites, therefore annualisation was required.</p> <p>-</p> <p>During 2020, an approximate 25% decrease in NO₂ was recorded due to COVID-19 induced reduction in traffic. However, PM₁₀ and PM_{2.5} concentrations were higher during the lockdown.</p>		<p>An LTN on Arlington Road, and four restrictions on traffic around Holy Trinity & St. Silas Primary School added.</p>	<p>-</p> <p>Ongoing engagement with John Lewis partnership. New electric fridges purchases for use in deliveries.</p>		<p>a low Traffic Neighbourhood on Arlington Road.</p> <p>-</p> <p>Continued operation of residential parking permit sacrifice whereby residents can exchange their permit for a Car Club membership.</p> <p>-</p> <p>Cleaner air walking routes promoted to public and schools.</p>	<p>Advice for homes' on the Council website.</p> <p>-</p> <p>Camden air quality officers ran a lunchtime webinar for Camden Staff to raise awareness of air pollution.</p> <p>-</p> <p>Euston Town BID continues to raise awareness through its website.</p>
Westminster	<p>Continued to monitor air quality with a focus on PM_{2.5}.</p> <p>-</p> <p>Installed 27 new NO₂ diffusion tube sites towards the end of 2020.</p> <p>-</p>	<p>All Westminster waste collection vehicles have been retrofitted to reduce NOx emissions by up to 99%.</p> <p>-</p> <p>Electric refuse collection vehicles</p>	<p>Enforcement of Westminster as a Smoke Control Area.</p> <p>-</p> <p>As a response to COVID-19, a set of measures were implemented as part of the Movement Strategy, including footway schemes,</p>	<p>Working closely with business on Westminster's new Freight Servicing and Delivery Strategy and Action Plan (2020).</p>	<p>Updated the Code of Construction practice, which covers all policy requirements.</p> <p>-</p> <p>Engagement with NRMM project. 39 NRMM inspections were completed in 2020.</p>	<p>Westminster continues to have the largest EVCP network of all London boroughs.</p> <p>-</p> <p>Enforcement on no idling across the city through penalty charge notices.</p>	<p>Published new guidance's for the boroughs carbon offset fund.</p> <p>-</p> <p>Continued support of <i>airTEXT</i>.</p> <p>-</p> <p>Engagement with TfL STARS programme.</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>New PM_{2.5} monitor installed at Elizabeth Bridge Monitoring site.</p> <p>-</p> <p>Continuing to support landowners installing air quality monitors.</p> <p>-</p> <p>COVID-19 did not severely impact the monitoring process overall, but some projects were delayed.</p> <p>-</p> <p>Trends in pollutants in 2020 saw a reduction in NO₂ (by approximately 30%), PM₁₀ and PM_{2.5}. This is attributed in part to COVID-19.</p>	<p>have been introduced.</p> <p>-</p> <p>Westminster awarded a Future Fleet Award 2020.</p>	<p>street closures and cycle stand installations.</p>		<p>-</p> <p>All major developments required to be Air Quality Neutral. Funding secured from developers where AQ benchmarks are not met.</p>	<p>-</p> <p>Roll out of car free days and pedestrianisation schemes through the ActiveStreets programme.</p>	<p>-</p> <p>Air quality audits delivered to all schools in the borough, to provide information and recommendation on road emissions and emissions from buildings.</p> <p>-</p> <p>Anti-idling events were held at sites including Paddington train station.</p>
Hackney	<p>Added 26 diffusion tube monitoring locations.</p>	<p>Increased the number of EVs in the fleet to 66.</p>	<p>33 new School Streets launched as part of the Council's</p>	<p>Ongoing work delivering the Sustainable</p>	<p>A total of 19,260 homes were visited to raise awareness of the</p>	<p>Emissions based parking charges</p>	<p>Engagement with the Pan London Idling Project, including</p>

Borough	Monitoring and other core statutory duties	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
	<p>-</p> <p>Diffusion tubes were overexposed between April and May due to inability to change over tubes in Lockdown, therefore annualisation of the data was required.</p> <p>-</p> <p>NO₂ concentrations reduced by approximately 25%, potentially due to the COVID-19 pandemic.</p>		<p>Lockdown Exit Strategy with TfL Streetspace funding. Two school streets were made permanent.</p> <p>-</p> <p>Green Screens were installed at St Mary's Church of England Primary School and Grasmere Primary School.</p> <p>-</p> <p>As a result of COVID-19, implemented over 18 LTNs across the borough.</p>	<p>procurement strategy 2018-2022.</p>	<p>negative impacts of solid fuel burning., of which 4,100 (21%) agreed to the conversation.</p> <p>-</p> <p>Ongoing work to install higher efficiency boilers. Approximately 1500 were renewed in 2020.</p> <p>-</p> <p>Cleaner Construction for London undertook 21 construction site audits in the borough.</p>	<p>for resident permits.</p> <p>-</p> <p>Location set for the implementation of new ECVPs.</p> <p>-</p> <p>300 secure cycle parking spaces and 250 secure scooter parking spaces were installed around 25 primary schools using TfL funding.</p> <p>-</p> <p>Continued trialling of EV Car Clubs in 2020.</p>	<p>holding virtual workshops and enabling officers to issue fines.</p> <p>-</p> <p>Promotion of <i>air</i>TEXT.</p> <p>-</p> <p>The London Walking and Cycling Conference took place as a series of three webinars.</p> <p>-</p> <p>Increased awareness of ULEZ through publishing information on Council website.</p>

Summary – Central London

AQ monitoring other core statutory duties

All central London authorities have borough-wide AQMAs declared, with the exception of Southwark, and all are declared for exceedances of the annual mean NO₂ objective. Kensington & Chelsea, Islington, City of London, Westminster, and Hackney have also included the 1 hour mean NO₂ objective. Kensington & Chelsea, Lambeth and Westminster have also declared an AQMA for exceedances of the annual mean PM₁₀ objective, whilst Southwark, Islington, Lambeth, City of London, Camden, Westminster, and Hackney have included the daily mean PM₁₀ objective in their AQMA declarations. In 2020, exceedances of the annual mean NO₂ objective were seen in all boroughs apart from Southwark and Islington. There were no measured exceedances of the hourly NO₂ objective and no measured annual mean concentration above 60 ug/m³, which indicates that it is unlikely that objective was exceeded. There were no exceedances of the annual or daily mean PM₁₀ objectives, except at one site in Lambeth, though the data should be treated with utmost caution as it is believed that spikes recorded at the station are due to contamination from a nearby tube vent.

Seven-year trends indicate a clear improvement of NO₂ concentrations for all Central London authorities, with several notable drops in concentrations between 2019 and 2020. In Southwark, the annual mean AQO was met at all sites for the first time. In Islington, all sites recorded NO₂ concentrations between 4 and 16 ug/m³ less in 2020 versus 2019. In Camden, NO₂ concentrations were on average 25% lower in 2020 as compared to 2019.

With regard to PM₁₀ concentrations, all Central London authorities, with the exception of Lambeth (purely as a result of the unrepresentative positioning of one of their monitors), have demonstrated an improvement in concentrations and compliance with the AQOs. There are fourteen automatic monitoring sites for PM_{2.5} in Central London, none of which recorded an exceedance of the air quality objective during 2020. There is no PM_{2.5} monitoring in Islington or Lambeth. Contrary to the trend in NO₂ concentrations, Camden found that PM concentrations were higher during the spring 2020 lockdown compared to the same period in 2019.

The majority of AQAPs have been recently updated. Camden, Westminster, City of London, and Islington have recently published an AQAP in 2019, whilst Hackney's AQAP was out for consultation at the time of writing. Refinements were made to monitoring strategies in most boroughs and monitoring networks were updated and extended in several boroughs. In 2020, an automatic monitoring station was installed on Old Kent road, to monitor PM_{2.5} for the first time. Camden and Westminster also installed a PM_{2.5} monitor. The City of London replaced old equipment in their monitoring network. Several boroughs also added diffusion tubes to their existing network. 30 diffusion tubes were added to the network in Kensington & Chelsea, Lambeth added 63 locations, Westminster 27 diffusion tubes and Hackney added 26 diffusion tubes.

The COVID-19 pandemic resulted in impacts of varying degrees in each Central London borough. The 2020 lockdown impacted some boroughs' ability to maintain diffusion tube networks. Diffusion tubes could not be changed over in April and May in Hackney and were therefore

overexposed, and it was necessary to complete annualisation of the 2020 data for Hackney. Diffusion tubes were not changed between March and August in 2020 in Lambeth, therefore data capture was below 75% at all sites. Sites also had to be annualised in City of London and Camden. COVID-19 did not affect data capture in Southwark, Kensington & Chelsea, Islington, Westminster. In several districts AQAP activities were scaled back. In Westminster, Camden and Lambeth some projects were delayed due to lockdown. In Kensington & Chelsea an air quality officer could not be hired. In Islington, many schemes and standard practices were delayed due to staffing and funding constraints.

Borough fleet actions

All Central London boroughs have made progress towards updating their borough fleets to achieve compliance with ULEZ standards. All fleet vehicles procured in Southwark now go through a full sustainability evaluation. The borough fleet in Kensington & Chelsea is now 100% ULEZ compliant. There is ongoing work to expand EV charging infrastructure for fleet vehicles in Kensington & Chelsea and Islington. Lambeth implemented an initiative to issue payment cards that enable EV charging across multiple charging points to aid the take up of electric vehicles. Electric refuse vehicles have been added in Islington, Westminster and City of London. Along with this, Westminster also retrofitted its non-electric waste collection vehicles to reduce NOx emissions, which led to the borough being awarded a Future Fleet Award 2020. Hackney also increased the number of electric vehicles in the borough's fleet. Camden is on track to achieve a fully zero exhaust fleet by 2022.

Localised solutions

Various strategies and projects are being implemented within Central London boroughs, many of which being funded through the MAQF 2019-22. Projects include; Idling Action London (led by Camden and the City of London), ZEN Phase 3 (led by Hackney) and Healthy Streets Everyday (led by Islington). Southwark expanded its School Streets to cover 25 schools in the borough. Lambeth added 19 new schools' streets, Hackney added 33, Islington added 22 and Camden added three. Air quality audits were also undertaken at schools in Southwark.

Green infrastructure was installed by Southwark, Kensington & Chelsea, Lambeth, Camden. Lambeth installed a green screen at Guy's and St Thomas Day nursery and a Poikilothermic Living Wall at St Anne's Primary School. 390 trees were also planted in Islington. Camden install a green wall, planters and a green walkway. Hackney also installed green screens at two primary schools.

Several boroughs increased cycle infrastructure and pedestrian priority as a response to the COVID-19 pandemic. City of London, Southwark, Camden and Islington expanded their cycle lane network. Southwark installed 1.8km of cycle routes, 13 on street cycle spaces and 52 cycle hangars. Camden focused on the replacement and removal of parking spaces to make way for cycle storage. Southwark also introduced LTNs, where pavement widening facilitated walking. Islington worked to make Old Street more pedestrian friendly along with promoting the use of cargo bikes and an overall shift in behaviour.

Other specific initiatives were carried out across Central London. Kensington & Chelsea have been supporting the GLA's Solar Together project. Lambeth and Southwark are trialling and monitoring

enhanced street sweeping protocols. Several boroughs are engaging in smoke control, often targeting bonfires. Measures have been put in place in Southwark, Kensington & Chelsea, City of London, and Westminster.

Delivery servicing and freight

Several projects and schemes are being delivered. The Defra-funded Cross River Partnership Clean Air Villages programme is supported across the boroughs. Westminster implemented a new Freight Servicing and Delivery Strategy and Action Plan in 2020 and is working closely with local businesses to implement it. Islington has extended its Cleaner Deliveries, Smarter Business project, engaging with local businesses. Delivery strategies across the borough revolve around consolidation centres and car free deliveries. The promotion of cargo bikes is common across boroughs. Southwark has joined with 'Pedal-Me' to deliver goods to residents from local businesses. The new City of London Courier Controls require the use of zero emission transport for deliveries under five miles. There is ongoing work in Islington through its Freight Consolidation Scheme and in City of London to implement last mile logistics hubs for deliveries. Lambeth has provided an electric van to businesses in Brixton. Camden has signed up to the Clean Van commitment and is offering training to drivers and has ongoing engagement with the John Lewis partnership to improve emissions. Additionally, Hackney has been working to deliver a sustainable procurement strategy.

Emissions for development and buildings

All Central London authorities are taking steps to ensure compliance is maintained when considering air quality in any development's planning phase through the GLA's SPG, Air Quality Neutral standards, CHP and biomass policy requirements, S106 agreements, NRMM requirements and Local Plans. The majority of Councils are continuing with replacing existing boilers with ultra-low NOx boilers. Islington refers households through their SHINE service for vulnerable residents. 1,026 boilers were replaced in Lambeth in 2020. In Kensington & Chelsea, a hydrogen fuel cell boiler is being trialled and Treadgold House received funding from the 'MustBe0' project to remove gas boilers from the building. Other specific initiatives include the Bunhill Heat Network scheme, which has been launched in Islington to heat properties from underground trains. City of London worked on raising awareness of construction emissions by commissioning a guide to low emission and alternative technology on construction sites and holding a webinar covering best practice. Some boroughs focused on indoor air quality and burning solid fuel. Camden has published 'Improving Indoor Air Quality: Advice for Homes'. In Hackney, 4,100 households were informed about the negative impacts of solid fuel burning. Lambeth also has ongoing work to address PM_{2.5} emissions from woodburning.

Cleaner transport

All Central London boroughs are encouraging and promoting sustainable travel through a range of measures. The main focus has been through increased provision and improvement of cycle routes, parking and cycle training. TfL cycle hire was installed in Southwark. A bike pool scheme was launched for Council staff in Islington and six E-bikes procured. Lambeth, in partnership with Sustrans, delivered the 'Bike it' behaviour change programme. City of London is working to secure cycle parking. The installation of EV charging points has also been conducted across many Central London boroughs including Southwark, Kensington & Chelsea, Lambeth, Camden, Westminster

and Hackney. Lambeth used CIL to fund charging points for ice cream vans. Hackney has been trialling EV Car Clubs. Emissions based parking prices and a diesel surcharge for on street and residential permits have been put in place in Southwark, Kensington & Chelsea, Islington, City of London, Camden and Hackney. In Camden, residents can sacrifice their parking permit in exchange for a car club membership.

LTNs were delivered in Hackney (eighteen), Islington (seven), Lambeth (five), Camden (one).

City of London and Camden co-lead the Inti-idling Action London project. Measures to reduce idling have been a priority across all boroughs, with several introducing enforceable penalty charges. For example, after the introduction of Camden's Traffic Management Order, 52 penalty charge notices were issued.

Public health and awareness raising

Most Central London boroughs have been engaging with local schools on the TfL STARS travel planning scheme and delivering air quality audits to schools. Boroughs are also engaging with Public Health by promoting the *air*TEXT service and the CityAir App. Community ambassador roles have been created across some Central London boroughs. In City of London an 'Air Quality Ambassador' scheme was implemented, with the aim of training individuals to run air quality events in their communities. In Kensington & Chelsea, a paid community champions role was created to help raise awareness. Central London boroughs have also actively promoted Car Free days and held events within their borough. For example, Islington held an 'air quality poster' competition for schools. Several boroughs also engaged with National Clean Air Day and Clean Air Week. Lambeth delivered a public webinar as part of this to raise awareness. In the City of London, a webinar was held promoting their 'Personal Exposure Toolkit'. Camden air quality officers ran a lunchtime webinar for Camden Staff to raise awareness of air pollution. Campaigns have been run across all Central London boroughs to raise awareness of idling among the general public. Online anti-idling sessions were completed with schools in several boroughs. Westminster held in person events at sites including Paddington train station. Other online sessions including the London Walking and Cycling Conference which was delivered by Hackney Council as a series of three webinars. Islington developed a Clean Air for Schools Toolkit to assess how they can improve air quality. With lockdown came improvements in air quality. Lambeth supported a campaign led by Global Action Plan to raise awareness of this across Lambeth and Southwark.

GLOSSARY OF TERMS

Term / Acronym	Definition
ASR	Annual Status Report
AQAP	Air Quality Action Plan
AQFA	Air Quality Focus Area
AQMA	Air Quality Management Area
AURN	Automatic Urban and Rural Network
BAM	Beta Attenuation Monitor
BEIS	(Department for) Business, Energy & Industrial Strategy
BID	Business Improvement Districts
CAB	Cleaner Air Borough
CABB	Clean Air Better Business
CAV	Cleaner Air Village
CCG	Clinical Commissioning Group
CHP	Combined Heat & Power
CLOCS	Construction Logistics and Community Safety
CND	Cycle Network Development
CoCP	Code of Construction Practice
CO ₂	Carbon Dioxide
CPZ	Controlled Parking Zone
CRT	Continuously Regenerating Trap (or Technology)
DEFRA	Department for Environment, Food and Rural Affairs
EV	Electric Vehicle
EVCP	Electric Vehicle Charge Points
FORS	Fleet Operator Recognition Scheme
g/km	Grammes per Kilometre
GLA	Greater London Authority
GTL	Gas To Liquid
JSNA	Joint Strategic Needs Assessment
LED	Light Emitting Diode
LEN	Low Emission Neighbourhood
LEZ	Low Emission Zone
LBCC	London Boroughs Consolidation Centre

Term / Acronym	Definition
LLAQM	London Local Air Quality Management
LLAQM.TG(16)	London Local Air Quality Management Technical Guidance 2016
LLAQM.TG(19)	London Local Air Quality Management Technical Guidance 2019
LLECP	London Low Emission Construction Partnership
LSx	London Sustainability Exchange
LTN	Low Traffic Neighbourhood
MAQF	Mayor's Air Quality Fund
NHS	National Health Service
NO _x	Nitrogen Oxides
NO ₂	Nitrogen Dioxide
NRMM	Non-Road Mobile Machinery
PCN	Penalty Charge Notice
PHV	Private Hire Vehicle
PM _{2.5}	Particulate Matter with an aerodynamic diameter of less than 2.5 micrometres
PM ₁₀	Particulate Matter with an aerodynamic diameter of less than ten micrometres
SCZ	Smoke Control Zone
SCH	Super Cycle Highway
SNAP	School Neighbourhood Approach Pilot
SPG	Supplementary Planning Guidance
STARS	Sustainable Travel: Active, Responsible, Safe
S106	Section 106
TfL	Transport for London
TMO	Traffic Management Order
ULEZ	Ultra-Low Emission Zone
WHO	World Health Organisation
ZEN	Zero Emission Network