MAYOR OF LONDON

LOCAL AUTHORITIES AND AIR QUALITY

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

February 2019



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enquiries 020 7983 4100 minicom 020 7983 4458 Copies of this report are available from www.london.gov.uk

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EXECUTIVE SUMMARY

Purpose of this Report

London's toxic air is a public health crisis and thousands of Londoners are dying prematurely as a result. This crisis requires action at every level – and boroughs have a key role to play. They manage the world-class monitoring network as well as having control of some of the levers to address pollution, such as parking policy and the majority of London's streets.

This report provides an overview of monitoring data, and Air Quality Action Plan (AQAP) measures delivered by boroughs across London; in order to enable more effective information sharing between local authorities. However, it does not make an assessment or judgement of performance, it is simply a compilation of the key information provided by boroughs in their statutory Annual Status Reports, for the purpose of increasing the level of understanding about pollution concentrations and air quality projects across boroughs. Cleaner Air Borough status will be the main method for assessing borough performance, and this will take place in late 2019.

The Mayor of London is committed to tacking air pollution and is delivering a bold package of measures to address this urgent health issue, including providing millions of pounds in direct funding to boroughs for air quality and clean transport through the Mayor's Air Quality Fund and the Local Implementation Plan. But we need the UK Government to play its part, too. This includes vital, national-level measures such as providing a national vehicle scrappage fund and additional powers in a new Clean Air and Environment Bill. Now more than ever, air pollution is an issue that needs resolute action across all levels of government (local, regional, national and European).

Monitoring Summary

There is significant variation in monitoring provision between boroughs and results are not readily comparable. Air Quality Management Areas (AQMAs) are generally declared as whole borough level, and there is often a lack of monitoring in air pollution 'hotspots' or focus areas. The most useful way to use monitoring data is to compare those from recent years at the same site with those from previous years.

Monitoring data for 2017 indicates that pollution trends across London showed improvement.¹

However, during 2017 all but one borough recorded exceedances of the NO_2 (nitrogen dioxide) annual mean air quality objective. Since 2015 the downward trend in measured NO_2 hourly mean concentrations has continued, with only 10 borough monitors exceeding the objective in 2017, compared with 22 in 2015.

Whilst it is too early to draw firm conclusions from this data it is consistent with an assessment of preliminary concentration data from 2017-2018 which suggests the Mayor's policies are already beginning to have an impact. Trend analysis of London-wide nitrogen dioxide levels show monthly

¹ Based on trends from the past seven years' worth of data.

average concentrations at roadside sites fell from 54 ug/m3 in January 2017 to 43 ug/m3 in December 2018, a reduction of 20 per cent.

Since 2015 monitoring has been expanded across most boroughs, with a 30 per cent increase in passive (diffusion tube) NO₂ monitoring points.

Monitoring points for PM_{10} have remained the same, and are relatively limited in terms of spatial coverage, with sites not always representing 'worst-case' locations. No borough recorded exceedances of PM_{10} annual mean air quality objective and all have shown good improvement across the last seven years. There were two boroughs which exceeded the PM_{10} 24-hour mean air quality objective (Brent and Lambeth). It is important to note however that this does not necessarily mean their air quality is worse than others. Rather, they have sited monitors in the most polluted locations. Councils have increased monitoring of $PM_{2.5}$ emissions, helping to support the integration of air quality and public health objectives. In 2017 there were 37 automatic $PM_{2.5}$ monitors across 16 boroughs, none of which recorded an exceedance of legal limits – although these are much more generous than recommended WHO quidelines.

It is important to note that, even with the encouraging NO_2 trend and the major improvements predicted as a result of initiatives such as the Ultra Low Emission Zone, a large number of NO_2 pollution hotspots will remain, so local action is still required to complement regional measures and target these areas. Furthermore, although London is meeting legal $PM_{2.5}$ limits we are still a long way off meeting the new health-based targets for $PM_{2.5}$, so concerted action is required across all levels of Government to achieve the Mayor's goal of meeting the World Health Organisaion target levels for $PM_{2.5}$ by 2030.

London Local Air Quality Management

In general, boroughs have engaged well in the LLAQM process, with nearly all Air Quality Annual Status Reports submitted on schedule - 30 on time, two late, one not yet submitted (which will be submitted in March 2019). The vast majority of Air Quality Action Plans (AQAPs) are now up to date or being updated - (20 fully updated, 12 being reviewed, and one out of date but being updated this year). While good progress has been made, there are a number of key recommendations; AQAPs should:

- Be updated every five years at a minimum.
- Include specific measures designed to address air quality focus areas and local 'hotspots'.
- Have clear timescales for implementation/completion, with relevant key performance indicators, so that effectiveness can be properly assessed.

AQMAs should be checked and amended as required, although revocation of AQMAs for PM is not encouraged at this time, as WHO guidance thresholds are still being breached.

Local Projects

The Mayor's Air Quality Fund (MAQF) currently supports many active projects and has encouraged more partnership working across boroughs. Other non-MAQF measures have centred on improvements to council vehicle fleets and updated procurement standards; the provision of 'green corridors' and improvements to public spaces to encourage modal shift to walking/cycling; and, the introduction of 20mph speed limits on some non-TfL roads.

There are some examples of collaboration between boroughs and TfL in identifying and implementing traffic management improvements including Low Emission Bus Corridors, Cycle Quietways, and improvements at key road junctions.

Public awareness campaigns and anti-idling campaigns have been carried out across most boroughs. There is widespread support of school travel planning and other engagement with schools, and promotion of sustainable travel.

There has been a focus on improving services for cycling and walking across most boroughs, including Quietways routes and increased provision of cycle parking. Measures are also in place in many boroughs to encourage uptake of cycling and walking. This includes the development of local cycling and walking strategies, provision of cycle training, encouraging car-free developments and introducing pedestrianised spaces. There is also increasing provision of charging infrastructure and discounted parking permits for electric vehicles, and support of local car clubs.

There continues to be limited information overall on local actions to improve emissions from the servicing and freight sector and some boroughs also lack actions to improve emissions from the council fleet. Where possible, and where they are not already doing so, boroughs should consider the feasibility of upgrading fleet vehicles with alternatively fuelled vehicles, providing fuel-efficient driver training, joining FORS/increasing the level of accreditation, and updating policies to avoid buying new diesel vehicles.

In terms of emissions from developments and buildings, nearly all boroughs have indicated their commitment to achieving the Mayor's air quality neutral standard, enforcing policies on combined heat and power (CHP) and non-road mobile machinery (NRMM), and adopting Supplementary Planning Guidance on sustainable design and construction. Many boroughs incorporated air quality measures into local planning policy, which has enabled them to achieve a higher standard of pollution mitigation at scheme design phase and/or provided additional funding for community sustainable transport schemes through S106 agreements. It is recommended that all boroughs formally incorporate air quality requirements within their local planning documents.

Some highlights of action delivered by boroughs include:

• Low Emission Neighbourhood (LEN) and Zero Emission Network programmes (ZEN) – LEN and ZEN programmes are in place or underway in the City of London, Southwark, Westminster, Hackney, Tower Hamlets, Lambeth, Islington, Greenwich and Redbridge.

- The Mayor's Clean Air Better Business programme the scheme, initiated by the Cross River Partnership, involves collaboration between Business Improvement Districts and central London boroughs.
- Public engagement events for national Clean Air Day and Car Free Day in 2017, and events planned for 2018.
- School Air Quality Audits carried out across numerous boroughs as part of the MAQF-funded GLA audit programme.
- NRMM site inspections NRMM requirements are being actively enforced across many boroughs.
- Partnerships and projects to improve freight related emissions various collaboration and projects are on-going including the North London Freight Consolidation Project, the South London Freight Quality Partnership, the Croydon Sutton Electric Freight scheme, the Wandsworth Low Emissions Logistics Project, the Greenwich Zero Emission Deliveries project, the Lewisham freight consolidation project at Evelyn Street and the Heathrow (Hillingdon) Sustainable Freight Group.
- Anti-idling action and signage across most boroughs.
- Emissions-based parking permit charges many boroughs have introduced emissions basedparking charges on residential permits. In the Westminster LEN this has also been introduced for metered parking, resulting in a 30 per cent reduction in older diesels parking in the area.
- A variety of urban realm improvements are in place or being implemented across boroughs including increasing urban vegetation, making changes to road layouts, closing of "rat run" roads, and introductin 20mph zones.

Conclusion

Overall, promising progress has been achieved in terms of concentration trends, borough action, borough engagement with the LLAQM system, and the impact of the LLAQM as a whole.

However, more needs to be done in terms of reducing pollution to safe levels and ensuring consistent, impactful and focused action across boroughs. The LLAQM is therefore being revised in order to:

• Ensure boroughs are taking suitably ambitious and targeted action, which is properly coordinated and which supports Mayoral objectives as set out in the London Environment Strategy and elsewhere;

- Ensure that London boroughs continue to work towards achievement of World Health Organisation safe limits for pollutants even when legal limits are met;
- Update information in the guidance documents to reflect new research, policies, and priorities; and
- Update Cleaner Air Borough Status (a recognition scheme for boroughs that was introduced under the previous Mayor) so that it is transparent and fair, now promotes continual improvement, and clearly aligns with new LLAQM priorities.

Boroughs will be consulted on the proposed update to the LLAQM in March 2019.

INTRODUCTION

The purpose of this report is to provide a summary of the latest information on local air pollutants - specifically nitrogen dioxide (NO_2) and particulate matter - and the key actions being taken to address these issues across the 32 London boroughs and the City of London. The data has primarily been derived from the 2018 Annual Status Reports submitted by each borough, with some additional information obtained via direct contact with the relevant local authority officer where necessary. The report is divided by geographical sub-regions.

Each borough received a copy of the summary relevant to their borough and was given the opportunity to amend and/or update any of the measures highlighted for inclusion in the annual report.

The 2017 monitoring results for each London borough are summarised in data tables for each subregion. However, it should be noted that monitoring data is not readily comparable as there is varying coverage in the level of monitoring provided from one borough to another. With automatic monitors especially, some boroughs have monitors close to the worst pollution, some have them in some of the least polluted locations – so it is not necessarily the case that those with the highest readings are "the worst". Summaries of each borough's AQAP are also provided; these highlight and discuss notable measures and recent progress.

BACKGROUND

Responsibility for Local Air Quality Management under Part IV of The Environment Act 1995 has been devolved to the Mayor of London in recognition of the specific challenges facing the 32 London boroughs and the City of London. In May 2016 the Mayor introduced a new framework for London: London Local Air Quality Management (LLAQM), and this is being updated currently to reflect the higher level of ambition needed on air quality and support coordinated, focused action across boroughs. There are several key LLAQM requirements for all the boroughs. These include:

- To continue to monitor and assess air quality in their areas and notify GLA of any changes to monitoring networks
- To submit an Annual Status Report (ASR) and public facing Annual Status Summary Report (ASSR) by the deadline each year
- To ensure that an Air Quality Management Area (AQMA) has been declared for any areas exceeding the UK Air Quality Objectives or EU limit values
- To ensure that a current and relevant Air Quality Action Plan (AQAP) is in place for each AQMA. AQAP's should be updated at least every five years and progress against AQAP measures reported in the ASR
- Following reassessment of the GLA Air Quality 'Focus Areas', boroughs are to incorporate focus areas into their AQAPs
- To consider the revision of AQMAs to reflect any significant changes in pollution levels. This consideration is required for the first time in 2020 and then every four years thereafter.

Through the LLAQM the GLA provides boroughs with a package of support including:

- · Workshops and seminars
- Enhanced central co-ordination
- A range of tools and templates such as bespoke borough-by-borough modelled pollution maps and source apportionment charts.

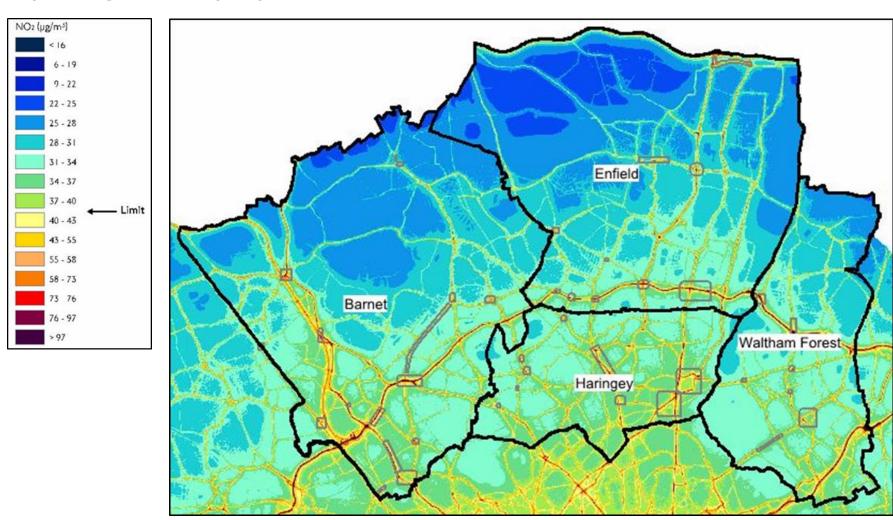
As part of the new LLAQM the GLA has also introduced a recognition scheme: Cleaner Air Borough (CAB). This provides boroughs with an accreditation recognising xxx. The criteria for this accreditation are currently being revised.

Boroughs are grouped into five sub-regions for statutory monitoring and sub-regional coordination purposes. This report is produced in line with the sub-regional boundaries but recognises that there are examples and opportunities for developing effective cross boundary air quality initiatives.

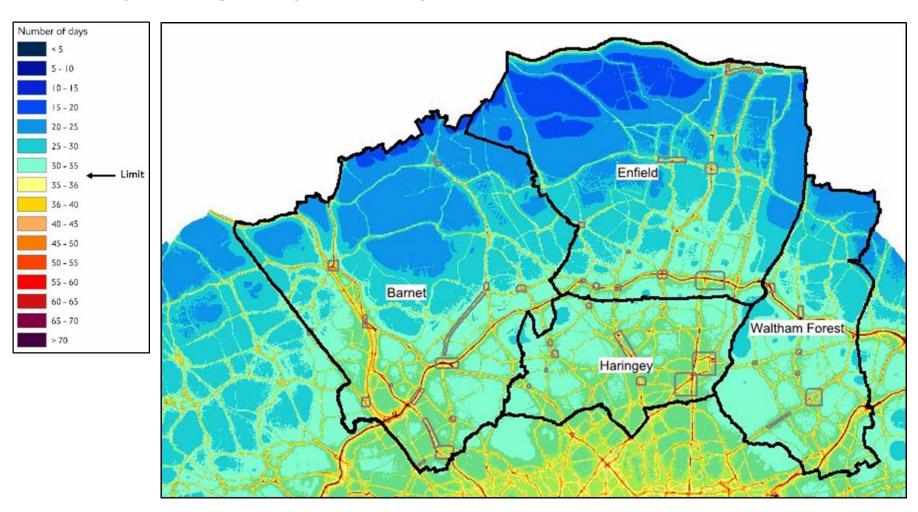
SUB-REGIONAL AIR QUALITY SUMMARIES

North London

Map showing current air quality focus areas and modelled annual mean NO₂ concentrations (2013)



Number of days exceeding the daily mean PM_{10} objective (2013)



Source: London Atmospheric Emissions Inventory (LAEI) – 2013

Air Quality Summary – North London

Borough	AQAP Date	AQ	MA	Focus Areas	No. aı	utomatio	sites	No.	Λ	/leasured	exceedan	ces in 201	7		end ars
		Borough Wide?	Declared For		NO ₂	PM ₁₀	PM _{2.5}	tube sites	NO ₂ Annual	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5}	NO ₂	PM ₁₀
Enfield	2015	Yes	NO ₂ annual PM ₁₀ 24h	7	4	1	0	9	1	0	0	0	-		
Barnet	2017	Yes	NO ₂ annual PM ₁₀ 24h	14	2	2	0	15	11	0	0	0	-		
Haringey	2011	Yes	NO ₂ annual PM ₁₀ (24h	8	2	0	0	13	14	0	-	-	-		-
Waltham Forest	2018	Yes	NO ₂ annual PM ₁₀ 24h	7	3	3	0	26	11	0	0	0	-		

Key

AQAP status	Exceedance status (by pollutant)	Trends
New AQAP <5yrs old	Below objective	Clear Improvement – All sites recorded lower concentrations in 2017 compared to 2011 data, with no exceedances in 2017.
AQAP under review	Above objectives but improved from previous years	Partial Improvement – Most sites recorded lower concentrations in 2017 compared to 2011 data, however exceedances remain.
AQAP >5yrs old	Above objective	Slight Improvement – Although many sites may show may show improvement, some sites are recording higher concentrations in 2017 compared to 2011 data.

Key actions

Borough s	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
Γ	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - AQAP up to date.		Planting programme in place including a green wall project at Bowes primary school close to A406 (a key focus area). The project results showed that the green wall reduced NO ₂ concentrations by 22% comparing the roadside to the playground side.		Environmental Health consult on all planning applications with a potential environmental impact and ensure they meet Mayor's requirements. - Conditions will be imposed on any new residential development within the AQMA to mitigate the impact on air quality. - Construction work must meet Non-	A program of electric charging point replacement has begun, with three replacements in 2017. - Anti-idling initiatives, including campaign days. - Dedicated parking spaces for car club vehicles. - Cycle Enfield strategy aiming to achieve 5% reduction in cars	Member of London airTEXT Consortium to provide free air quality alerts to the public. The Council has a School Travel Planning Officer working with schools to develop travel plans (77% of schools currently have sustainable travel plans).

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
					Road Mobile Machinery (NRMM) requirements All major developments are required to submit a Travel Plan.	on key routes has begun. The strategy includes cycle training, cycle rides, safer driving skills, bike workshops, increasing and improving cycle network and signage.	
Barnet	ASR submitted on time. - Existing levels of monitoring maintained (although no monitoring at PBM20 in 2017 due to building work on flats). -	Signed up to Fleet Operator Recognition scheme (FORs) - aiming for Bronze in 2018. - Four new refuse vehicles have been ordered as part of the planned uptake of new Euro VI vehicles into the fleet.	In 2017 612 trees were planted across the borough with the specific aim to improve air quality. A new Green Infrastructure Supplementary Planning Document was adopted in October 2017.	A feasibility study and detailed research were carried out in 2017 to investigate joining the North London Freight Consolidation scheme. The work concluded that there were no key deliveries that could be	Supplementary Planning Guidance (SPG) on Sustainable Design and Construction has been adopted. At least 160 "construction method statements" were submitted in 2017.	Exploring the option to extend the inner London Ultra-Low Emission Zone to cover the whole borough. Differential parking charges set based on CO ₂ emissions for residential permits.	Regular communication and partnership with Public Health, including ASRs, AQAP steering group meetings and air quality grants Engagement with local schools on the TfL STARS

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
	AQAP up to date.		In 2017 there were six new 20mph zones introduced near schools.	consolidated and have an appreciable impact.	A part-time enforcement officer for the Mayor's NRMM guidance has been in place since January 2017 and NRMM planning conditions are now put on all major developments.	Increased provision of electric vehicle and cycle parking infrastructure. - Provision of cycle training for adults and children.	travel plan scheme. - Anti-idling campaign for Clean Air Day 2017, including leaflets, posters and publicity in the local press.
Haringey	ASR submitted on time. - Two new diffusion tube monitoring locations introduced in 2017. - AQAP out of date. An update is in progress, which was on hold awaiting	All vehicles in council ownership are compliant with the requirements of the Low Emission Zone. Two EVs are available for staff use, vehicles have blackbox tracking with lightfoot, and driver training is required.	20mph zones in all streets with the exception of major and TfL roads. - Trial of a green wall at a school.	Business engagement as part of Business Improvement District and Wood Green regeneration. - All Highways contractors have at least Bronze FORS accreditation.	Adoption of the new Development Management Plan which requires air quality assessments for developments and (where required) mitigation. - Dust Management Plans are required	Planned installation of 65 new EV charging points in 2018. - Supporting the operation of two car clubs within the borough	Encouraging and supporting schools in developing school travel plans. - Air Quality Audits in three schools – recommendations to be progressed (MAQF).

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 new Air Quality Matrix from the GLA.				for all major and medium sized developments via planning conditions. - MAQF funding has enabled the recruitment of a shared (with Enfield, Barnet and Waltham Forest) NRMM officer.	Anti-idling enforcement. - Increasing the proportion of electric, hydrogen and ultra-low emission vehicles in Car Clubs. - Planning conditions encourage car free developments and for developments to include car clubs spaces. - Promotion of cycling and improved/ increased provision of cycle infrastructure.	Ongoing AQ apprentice scheme and an Air Quality Action Day to raise awareness of air quality and health in schools (MAQF). - In 2017 MAQF funded a series of public health and business engagement projects to raise public awareness. - Promotion of airTEXT.

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
Waltham Forest	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring in 2017). - AQAP up to date (new plan published in 2018).	Require the Council's new waste contractor (from October 2019) to have Gold status under FORS.	Planned completion of implementation of the Lea Bridge Cycle Route by Autumn 2018. - Implementing 20mph speed limits in built-up residential areas.	Continue to promote and report on the progress of the Zero Emission Delivery Service, the Construction Consolidation Pilot and the Sustainable freight initiative. - Plan to undertake a feasibility study on Virtual Loading Bays in town centres in 2019.	Every major development will have construction management and NRMM conditions, and will meet the AQ Neutral Emissions benchmarks set out in the Sustainable Design and Construction SPG.	Regular anti-idling campaigns. - Increased provision of EV charging points, cycle hubs, car club bays and free or discounted parking for zero emission cars.	Work to ensure that public health is supporting engagement with local stakeholders. Improving Council website with air quality information, and local communication via Waltham Forest News and Twitter. Air Quality Business Pledge initiative and airTEXT promotional campaign on Clean Air Day.

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 local schools including the TfL STARS program, running the "School Streets" trial and the Air Quality Ambassadors initiative.

Summary – North London

AQ monitoring and other core statutory duties

All boroughs have declared whole borough AQMAs for exceedance of the annual mean NO_2 and 24-hour PM_{10} objectives. There has been limited improvement in measured NO_2 .

All north London boroughs submitted their 2018 ASRs on time. All boroughs continue to demonstrate exceedance of the NO_2 annual mean objective, but are compliant with the NO_2 hourly objective, and with annual and 24-hour PM_{10} objectives. Long term NO_2 concentrations are showing partial improvement (although exceedances remain), and PM_{10} clear improvement.

None of the north London boroughs currently monitor for $PM_{2.5}$. Haringey has historically had $PM_{2.5}$ monitoring carried out at an AURN site, however in January 2016 the Council were notified of the intention to move the $PM_{2.5}$ monitor to a new location outside the borough. Haringey also does not currently carry out PM_{10} monitoring, although the borough-wide AQMA is declared for the 24 hour PM_{10} objective.

Overall, the monitoring campaigns have been maintained and are primarily at roadside locations. Haringey is the only borough to introduce new monitoring sites in 2017. All boroughs could consider reviewing their locations to determine whether they are in line with the GLA focus areas.

Enfield, Barnet and Waltham Forest's AQAPs are all up to date, but the Haringey 2011 AQAP requires updating, which they currently are in the process of doing.

Fleet improvements

Both Barnet and Waltham Forest have signed up to the Fleet Operator Scheme, and Barnet is working towards introducing new Euro VI vehicles into their fleet. All Haringey council vehicles are compliant with the requirements of the Low Emission Zone.

Local measures

Local projects conducted in north London have included planting programmes, and introduction of 20mph zones to specific areas of concern. Waltham Forest is implementing the Lea Bridge Cycle route which is due for completion in 2017, and Haringey is trialling a green wall at a local school.

Delivery servicing and freight

There is limited information provided on local actions dealing with delivery servicing and freight in north London, particularly in Enfield and Haringey. A feasibility study was carried out in Barnet to investigate joining the North London Freight Consolidation project, but it was determined that the impact would be minimal. In Haringey, highways contractors have at least bronze FORS accreditation, and the borough is engaging with businesses as part of the BID and Wood Green regeneration. Waltham Forest continues to operate the Zero Emission Delivery Service, Construction Consolidation Pilot and the Sustainable Freight Initiative. Waltham Forest also plans to undertake a Virtual Loading Bay feasibility study in 2019.

Emissions for development and buildings

All boroughs have indicated that new approved planning applications are required to meet the Mayor's air quality neutral, CHP, and NRMM requirements. MAQF funding has enabled the recruitment of a shared Enforcement Officer across the north London boroughs to visit construction sites and enforce the Mayor's NRMM guidance. Supplementary Planning Guidance on Design and Construction has been adopted in Barnet and Waltham Forest, and Haringey has adopted a new Development Management Plan.

Cleaner transport

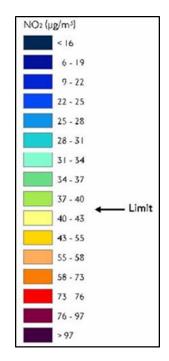
There is a focus on increasing provision of services and infrastructure for cycling, car sharing and EV charging in north London, through a number of local actions. Haringey have planning conditions in place to encourage car-free developments and car club spaces. Barnet and Waltham Forest have introduced differential parking charges based on vehicle emissions. Barnet will be extend its Ultra-Low-Emission-Zone, which will cover the whole borough from October 2021. There is also a focus on anti-idling, with increased enforcement and/or campaigns in all boroughs.

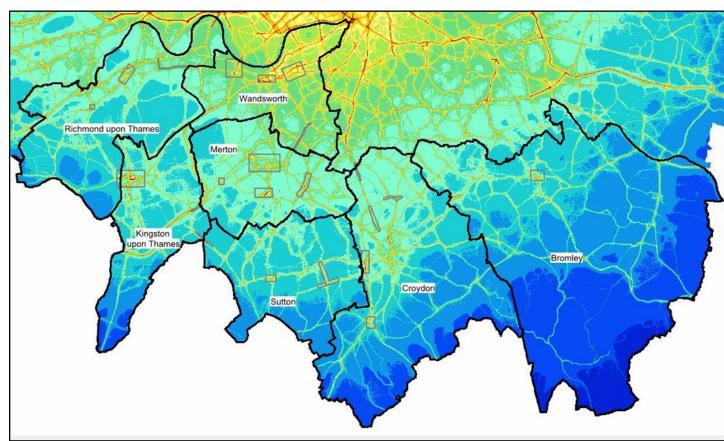
Public health and awareness raising

All boroughs have reported progress on engagement work with schools. This includes developing travel plans and engagement with the TfL STARS scheme, air quality apprentice and ambassadors' schemes, and the Waltham Forest "School Streets" trial. There is also a focus on engagement with public health and on raising awareness of anti-idling via campaigns.

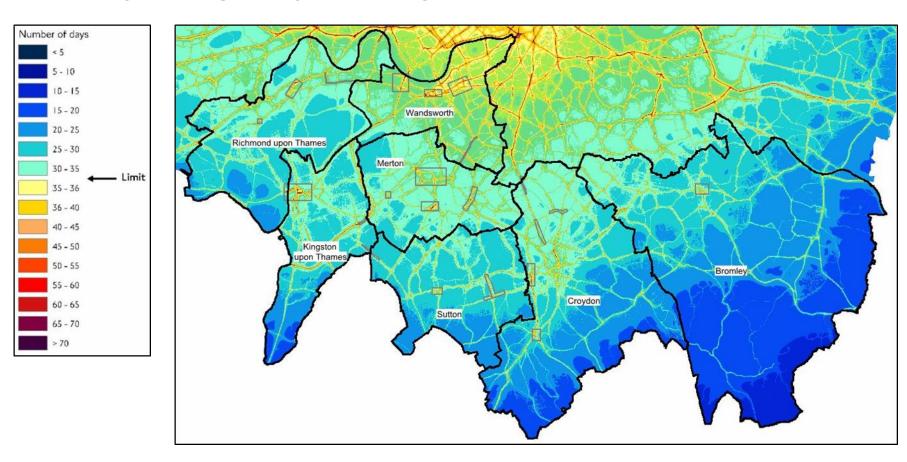
South London

Current air quality focus areas and modelled annual mean NO₂ concentrations (2013)





Number of days exceeding the daily mean PM_{10} objective 2013



Source: London Atmospheric Emission Inventory 2013

Air quality summary – South London

Borough	AQAP Date	AQMA		Focu	No. au	tomatic	sites	No.	Measure	d exceeda	ances in 2	017		7 year	trend
	Date	Boroug h Wide?	Declared for	Area s	NO ₂	PM ₁₀	PM _{2.5}	tube sites	NO ₂	NO ₂ Hourly	PM ₁₀ Annual	PM ₁₀ Daily	PM _{2.5}	NO ₂	PM ₁₀
Bromley	2018 draft	N	NO ₂ annual	2	1	1	1**	10	5	0	0	0	0		
Croydon	2017	Υ	NO ₂ annual	5	4	2	1	31	23	0	0	0	0		
Kingston	2017	Υ	NO ₂ annual PM ₁₀ annual/24h	2	1	1	0	40	17	0	0	0	-		
Merton	2018	Υ	NO ₂ annual PM ₁₀ 24h	4	1	1	0	50	37	N/R*	0	0	-		
Richmond	2018 draft	Υ	NO ₂ annual PM ₁₀ annual /24h	4	3	2	1	64	40	0	0	0	0		
Sutton	2013 review	Υ	NO ₂ annual/1h PM ₁₀ annual/24h	3	4	4	1	25	4	0	0	0	0		

Local Authorities and Air Quality

Wandsworth 2015 Y NO2 annual PM10 24h	5	7	5	0	18	9	1	0	0	-		
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^{*} Not reported in 2018 ASR

Key

AQAP status	Exceedance status (by pollutant)	Trends
New AQAP <5yrs old	Below objective	Clear Improvement – All sites recorded lower concentrations in 2017 compared to 2011 data, with no exceedances in 2017.
AQAP under review	Above objectives but improved from previous years	Partial Improvement – Most sites recorded lower concentrations in 2017 compared to 2011 data, however exceedances remain.
AQAP >5yrs old	Above objective	Slight Improvement – Although many sites may show may show improvement, some sites are recording higher concentrations in 2017 compared to 2011 data.

Key actions

^{**} Indicative monitoring only

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	ASR submitted late. - New diffusion tube site introduced in 2017. - AQAP out of data but currently being updated.			Collaboration with TfL on the South London Freight Quality Partnership.	Requirement for construction dust plans from contactors. - Environmental permits are required for specific industrial installations.	Several Car Clubs operating successfully within the borough. - Council officers given powers to enforce vehicle idling restrictions. - Cycle to work scheme in place for Council staff.	Provision of real time monitoring data to the public via the "Through Love Clean Air" website.
Croydon	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - AQAP up to date.	All council fleet compliant with Euro III standards.	SCOOT installed at two key locations (in 2010 and 2011) to improve traffic flow.		Developments are required to submit a Construction Logistics Plan. - All developments are required to install ultra-low NO _x boilers.	Developing a toolkit to highlight benefits of considering emissions in procurement. - Increased registered users	Three Anti-idling awareness days. - "Clean Air 4 Schools" awareness project completed in 2017. - On-going support and promotion of airTEXT.

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
Kingston	ASR submitted on time. - Two new automatic stations	General policy of using alternatively fuelled vehicles.	Cycling and walking strategies and green travel plans.	Long term measure to improve freight access and loading	Use of the SPG on Controlling Dust and Emissions from Construction and Demolition	to the car pool scheme. Work has progressed to significantly improve Chessington	Engagement with schools on the TfL STARS programme. Anti-idling engagement with local schools and information on the Council website.
	installed and relocation of some diffusion tube sites in 2017. - AQAP up to date.		Construction has begun in 2017 on a Go Cycle scheme at Kingston station to upgrade the public space and improve cycle facilities. - Tree planting strategy	arrangement at key locations.	sites, and requiring larger developments to submit Construction Management Plans including NRMM compliance.	South Station, due for completion 2019. - Installation of EV charging points at 24 locations. - Anti-idling signage. - Increased provision of cycle parking,	Engagement with local schools and businesses on Travel Plans. Collaboration with public health on an Air Quality report and promoting airTEXT.

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
						improvements to the cycle network and cycle loan and cycle hire schemes.	
Merton	ASR submitted on time. - All sites reviewed. Existing levels of monitoring maintained (three sites closed; three sites opened). - AQAP up to date (new plan published in 2018).		MAQF Green infrastructure project at Willow Lane Industrial Site, Mitcham Public consultations on Cycle Quietways between Clapham Common and Wimbledon (TfL Quietways project).		Draft Supplementary Planning Guidance undergoing review prior to adoption into Local Plan. - Continued leading of the NRMM program Air Quality Special Planning Document drafted and awaiting approval. - Inspection and enforcement of	Increased provision of EV charging infrastructure. - Two successful Car Clubs in borough. - Introduction of five Controlled Parking Zones. - Diesel parking levy implemented in 2017. -	Participation in CleanerAir4Schools joint project and promotion of school travel plans. - Participation in the Mayor's Air Quality Audit for schools.

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
					clean air requirements at Part B installations.	Provision of cycle parking facilities.	
Richmond	ASR submitted on time. - All monitoring sites reviewed. Existing levels of monitoring maintained (2 sites closed; 2 sites opened). - AQAP out of date but currently being updated.	All fleet vehicles are Euro IV or above. - All contractor vehicle emissions controlled through procurement.	Supported and match funded green screen at East Sheen Primary School as part of the Mayors air quality school's audit programme. No engine idling for taxis and PHV encouraged by officer intervention on major Twickenham RFU match days. Ad hoc monitoring of no idling by taxis, coaches and ice cream vans at		Continued leading of the NRMM program with Merton. - Inspection and enforcement of clean air requirements at Part B installations. - All major planning applications considered for air quality impacts. - Air Quality Special Planning Document drafted and awaiting approval.	Participation with TfL and the Mayor in the development of a Low Emission Zone. - EV Charging scheme adopted with 200 new charge points planned for installation by 2025/26. - Car clubs operating with 71 car club bays throughout the Borough	Engagement with schools on TfL STARS travel plan scheme, and support for cycle, pedestrian and scooter training for children. Clean Air 4 Schools program continued in house. Awareness raising campaigns in 2017 and 2018 on correct fuels to burn in smoke control areas. Participation in the Mayor's Air Quality Audit for schools.

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
			Kew Gardens and across borough.			On-going projects to improve cycle facilities. - Quietway 21 will be delivered by December 2018 and a feasibility study for a second Quietway will be undertaken in 2018. - New hybrid buses on routes R68, R70 and 285.	Part of Mayors "no engine idling" campaign.
Sutton	ASR submitted on time. - One new diffusion tube site introduced to network in 2017.	All fleet vehicles are Euro VI diesel and the number of vehicles within the fleet has been reduced Procurement policies require contractors to	Hackbridge Regeneration project to smooth traffic flow is complete. - A number of anti- idling signs to be introduced to areas which have	Delivery & Service Plans for Council's activities In partnership with Croydon, the Croydon Sutton Electric Freight project has been	All industrial processes are inspected in accordance with Environmental Permitting regulations. - Dust mitigation measures are	Ultra Low Emission Vehicles policy adopted in November 2017. - Free/discounted parking permits for EV vehicles. -	Development of the Workplace Scorecard engagement strategy – pilot to be carried out. - Engaging with schools and TfL STARS travel plan scheme

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
	AQAP out of date but currently being updated.	use vehicles with lower emissions.	received complaints. - Air quality improvement project in Beddington Lane.	launched as part of London's Go Ultra Low City Scheme.	required in line with the GLA's SPG for larger developments. - Low NO _x boilers recommended in new developments via a planning condition.	A number of schemes delivered in 2017 to improve traffic flow and cyclist/pedestrian facilities. - Promotion of car clubs.	Continued promotion of airTEXT. - Working closely with Public Health on the Joint Strategic Needs Assessment, and developing the Health and Wellbeing Strategy Action Plan in 2017.
Wandsworth	ASR submitted on time. - Monitoring network reviewed in 2017, 14 new diffusion tube sites and 10 sites removed. - AQAP up to date.	To use petrol/hybrid/electric vehicles for replacement of council fleet where possible. All vehicles purchased under 1.205 tonnes will not be diesel driven. To replace 50% of current vehicles with alternative fuel to diesel by October 2020.	Progress towards Putney High Street Air Quality Improvement Project (MAQF). - Tooting and Clapham Junction town centre action plans. - Actions undertaken to reduce emissions from Nine Elms	Delivery restrictions in Putney High St and working to also reduce congestion in other areas. - Low Emissions Logistics Project feasibility study to investigate the consolidation of goods and services in hot spot areas.	Installation of ultra-low NO _x boilers in Council buildings. - Joint project with other Boroughs on the London Low Emission Construction Partnership (MAQF). - Regulation of industrial activities	Enforcement of anti-idling. - Installation of 99 EV charging points in 2017. - Consultation on the ULEZ and LEZ plans for Greater London. - Promotion of car clubs with 200 fixed-bay	GLA anti-idling campaign and air quality champions project with other local authorities (MAQF). - Promotion of sustainable travel and travel plans in schools. - Promotion of airTEXT service

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
		Air quality to be considered as part of the procurement of goods, services and works.	construction site, and a compliance officer appointed. - 20mph speed limits on residential roads.		through environmental permitting. - Shared officer with the other south London boroughs for NRMM compliance. - Require an Air Quality Neutral Assessment for all new major developments in line with the Mayors SPG.	vehicles by the end of 2017. - Use of Controlled Parking Zones. - Increased provision of cycle infrastructure. - Promotion of public transport.	Provision of air quality information online. - Director of Public Health to take Air Quality Champion role and lead in awareness raising initiatives.

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 just in the north-west. Since the original declarations, only the borough of Sutton has amended its AQMA to incorporate exceedances of the hourly mean objective for NO_2 , and the annual mean objective for PM_{10} .

All of the south London boroughs have submitted their 2018 ASR on time, with the exception of Bromley.

It is noted that all boroughs in south London that have submitted reports are exhibiting exceedances of the annual mean NO_2 objective. There was only one exceedance of the NO_2 hourly mean objective, recorded in Wandsworth (note Merton has not provided figures for hourly NO_2 in their 2018 ASR). There are no reported exceedances of annual or 24 hour PM_{10} objectives or of the annual $PM_{2.5}$ objective in any of the south London boroughs in 2017. All south London boroughs are showing partial improvement in NO_2 concentrations and clear improvement towards meeting PM_{10} objectives in their seven year trends.

There are three $PM_{2.5}$ automatic monitoring sites in south London, in the boroughs of Croydon, Richmond and Sutton. The Croydon site is an urban background site and the Sutton site is industrial. In Richmond, $PM_{2.5}$ is monitored at the suburban Teddington AURN site. Bromley has an indicative $PM_{2.5}$ monitor installed in 2015, but due to technical faults no data are available for 2017.

Few of the boroughs have AQAPs that are less than 5 years old. Bromley, Croydon, Sutton and Richmond are in the process of updating their AQAPs, and Merton has recently adopted an updated AQAP in 2018. Kingston's and Wandsworth's AQAPs are also up to date.

Bromley, Kingston, Merton, Richmond, Sutton and Wandsworth have all made changes to their monitoring network in 2017, whilst Croydon has maintained existing levels of monitoring. All boroughs could consider reviewing their monitoring locations again in 2018 to ensure they are still in line with the GLA focus areas.

Fleet improvements

Measures applied by south London boroughs for promoting fleet improvements generally involve ensuring vehicles are compliant with a particular level of Euro Standard, introducing and using alternatively fuelled vehicles in the borough's fleet and controlling vehicle emissions via procurement.

Local measures

Boroughs are implementing a wide range of local measures.. Kingston is implementing a Go Cycle scheme at Kingston Station, to improve cycle facilities and promote cycling, walking and green travel and is continuing with its tree planting strategy. Merton is implementing a green infrastructure project at Willow Lane Industrial Site, Mitcham, using MAQF funding, and is consulting on Cycle Quietways

between Clapham Common and Wimbledon as part of the TfL Quietways project. Richmond is undertaking engine idling enforcement by officer intervention at Twickenham RFU match days and at Kew Gardens. Sutton is also taking anti-idling action by introduce signage at areas which are receiving complaints. Sutton is also undertaking an air quality improvement project in Beddington Lane, and a regeneration project to smooth traffic flow in Hackbridge. Wandsworth continues to make progress towards its MAQF Putney High Street Air Quality Improvement Project, and is looking to undertake similar town centre actions in Tooting and Clapham. Actions are also being undertaken to reduce emissions and monitoring compliance at the Nine Elms construction site, and to introduce 20mph speed limits to residential roads.

Delivery servicing and freight

Limited information has been provided 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 does not provide details of progress against this. Croydon and Sutton are working in partnership on the Croydon Sutton Electric Freight Project, which has been launched as part of London's Go Ultra Low city scheme. Sutton also has delivery and service plans in place for council activities. Wandsworth continues to implement delivery restrictions in Putney High Street, and is participating in a Low Emissions Logistics Project to investigate the feasibility of consolidating goods and services in hotspot areas.

Emissions from development and buildings

Most boroughs are either already enforcing or planning to adopt the Supplementary Planning Guidance on Controlling Dust and Emissions. Industrial activities are regulated through environmental permitting. Richmond and Merton are leading an NRMM enforcement programme, and the south London boroughs share an officer responsible for NRMM compliance. In Croydon developments are required to submit a Construction Logistics Plan, and in Croydon and Wandsworth, ultra-low NO_x boilers are required for developments. There is also a joint project between the south London boroughs through the MAQF-funded London Low Emission Construction Partnership.

Cleaner transport

Most boroughs are progressing with measures to improve cycle and pedestrian infrastructure and services, provision of EV charge points, public transport, and provision of anti-idling signage and/or enforcement. Richmond and Merton are investigating the feasibility of and delivering cycle Quietways. Wandsworth and Merton have introduced some Controlled Parking Zones, and Sutton and Merton have varying parking charges in place according to vehicle type. Many boroughs support car clubs and procurement policies that favour the uptake of low emission vehicles in council fleets. New hybrid buses have been introduced to three routes in Richmond.

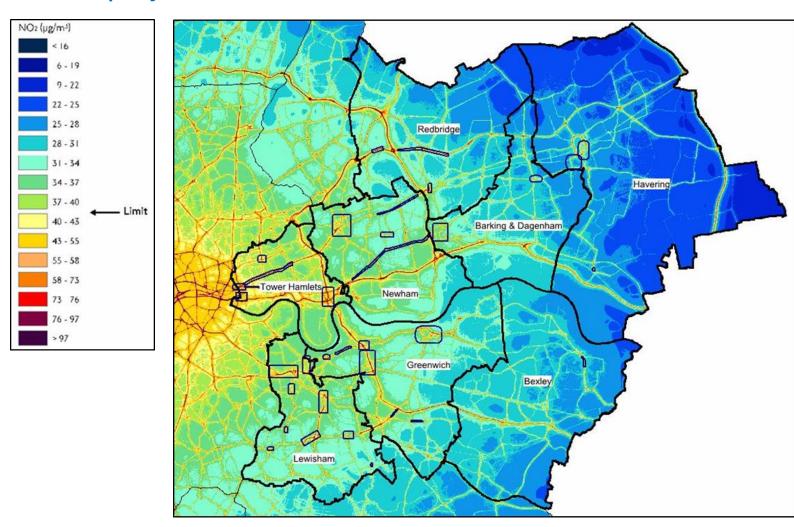
Public health and awareness raising

School and business travel planning, anti-idling and sustainable travel continue to be promoted by most of the south London boroughs, often through wider public awareness campaigns, for example the GLA-led MAQF funded anti-idling campaign. AirTEXT is still actively promoted in Croydon, Kingston, Sutton and Wandsworth. The Director of Public Health at Wandsworth has recently taken on the role of Air

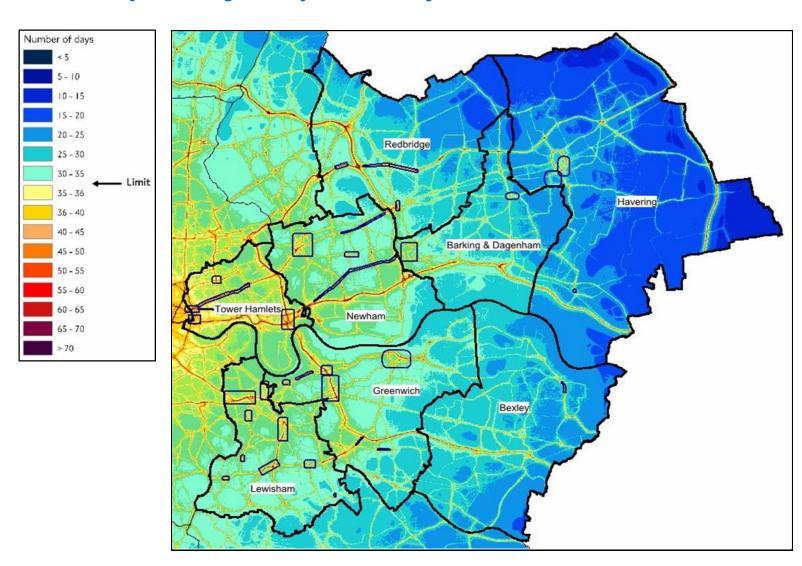
Quality Champion and leads awareness raising initiatives in the borough. Sutton has developed a Workplace Scorecard Engagement pilot to engage with local businesses, and has developed a Health and Wellbeing Strategy Action Plan in collaboration with public health. All boroughs except for Bromley participated in the Clean Air 4 Schools program, and Richmond is continuing the program. Richmond has also carried out campaigns to raise awareness on the correct fuels to burn in smoke control areas. Richmond and Merton have participated in the Mayor's air quality audit programme for schools.

East London

Current air quality focus areas and modelled annual mean NO₂ concentrations (2013)



Number of days exceeding the daily mean PM_{10} objective (2013)



Source: London Atmospheric Emissions Inventory 2013

Air quality summary – East London

Borough	AQAP Date	AQMA		Focus	No. auto	matic si	tes	No.	No. Measured exceedances in 2017					7 year trend	
	Date	Borough Wide?	Declared For	Areas	NO2	PM1 0	PM2.	tube sites	NO2 Annual	NO2 Hourly	PM10 Annual	PM10 Daily	PM2.5 Annual	NO2	PM1 0
Barking & Dagenham	2011	Υ	NO2 annual/h PM10 24h	2	1	0	15	2	0	0	0	0	0		
Bexley	2018 draft	Υ	NO2 annual PM10 annual/24h	4	4	3	0	4	1	0	0	0	0		
Greenwich	2017	Υ	NO2 annual PM10 24h	10	10	9	42	10	23	0	0	0	0		
Havering	2018	Y	NO2 (annual PM10 24h	2	2	1	60	2	31	0	0	0	0		
Lewisham	2018	N	NO2 (annual) PM10 (24h)	3	2	1	35	3	13	0	0	0	0		

Local Authorities and Air Quality

Newham	2018 draft	N	NO2 annual PM10 24h	2	2	0	17	2	6	0	0	0	0	N/R*	
Redbridge	2018 draft	Υ	NO2 annual PM10 24h	2	2	2	23	2	16	0	0	0	0		
Tower Hamlets	2017	Y	NO2 annual PM10 24h	4	3	1	75	4	49	1	0	0	0		

^{*} Not reported in 2018 ASR

Key

AQAP status	Exceedance status (by pollutant)	Trends
New AQAP <5yrs old	Below objective	Clear Improvement – All sites recorded lower concentrations in 2017 compared to 2011 data, with no exceedances in 2017
AQAP under review	Above objectives but improved from previous years	Partial Improvement – Most sites recorded lower concentrations in 2017 compared to 2011 data, however exceedances remain
AQAP >5yrs old	Above objective	Slight Improvement – Although many sites may show may show improvement, some sites are recording higher concentrations in 2017 compared to 2011 data.

Key actions

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 and Dagenham	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - AQAP out of date but currently being updated.		Lobbying TfL for improvements to specific roads within borough identified as suffering traffic congestion and poor air quality. Air quality audits at primary schools. Working with TfL and neighbouring authorities on the East London Sub Regional Transport Plan.	Encouraging use of river Thames as a freight corridor using planning conditions.	Local planning policy requires developers to comply with London Plan Policy and the Mayor's carbon reduction targets. - Use of planning conditions or Section 106 agreements to work with developers to produce travel plans.	Exploring potential for improving bus services including new routes and increased capacity. - Schemes to improve pedestrian footways and promote walking. - Improvement works at bus and rail stations to improve access and capacity. - Installation of EV charging points. - Implementation of safe cycle routes and infrastructure,	Engaging with local businesses, schools and residents to implement travel strategies. - Sustrans "Active Travel" and Living Streets "Walk to School" awareness raising campaigns.

Bexley	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - New AQAP drafted in 2018 but adoption delayed. Expected to be adopted by the end of 2018.	Encourage remote working for council staff. - Council travel plan to minimise car use, including pool cars. - Replace all street services vehicles to meet Euro VI.	Implementation of two cycle Quietways (Q14 Thames Path and Q1+), and a cycle hub at Abbey Wood. - 'Better Streets' improvements and street planting for Bexleyheath Town Centre, Sidcup Town area and Yarnton Way.	Policy in place to control additional lorry vehicle movements in Manor Road. - Encouraging FORS membership for freight operators. - Working with TfL to trial out of hours deliveries with quiet vehicle technology.	Major developments required to submit AQ assessments which include an AQ neutral appraisal in accordance with the GLA SPG. Developments will be required to adhere to NRMM conditions.	including "Quietways". - Support of Barking and Dagenham Car Club. Installation of EV charging points. - Increased provision of cycle parking and cycle routes. - Improvements to public transport.	Anti-idling campaign. - Engaging with local schools including STARS project. - Promotion of airTEXT.
Greenwich	ASR submitted on time.	Procurement code to reduce	Missing Link scheme to create a safe,	New Zero Emission	Developments should comply with	On-going Low Emission	Co-ordination with public health teams.
	on time.	emissions.	elevated walkway	Deliveries project	the GLA SPG.	Neighbourhood zero	pablic ficultif (call).
	- I.t.	_	for pedestrians and	_	_	emission transport	
	Two diffusion	_	cyclists from the	EcoStars scheme		and air quality	Promotion of airText.
	tube sites were closed and the		Thames Barrier to	for lorry fleets			-

	GR5 station	Trial of a zero	the Woolwich	based or operating	NRMM planning	improvement	Promotion of the TfL
	relocated to a	emissions electric	Dockyard.	in the borough.	conditions applied	projects.	STARS transport
	new site on	refuse vehicle.	_		to developments.	_	planning program
	new site on Trafalgar Road in 2017. - AQAP up to date (new plan published in 2018).	refuse vehicle. - 20 EV charging points installed for council fleet.	Trafalgar Road (East) Improvement Scheme to improve traffic flow. - Woodlands Crescent Road Closure to prevent rat-running.		Enforce planning condition to regulate CHP, biomass and boiler installations.	Installation of a rapid EV charger. - Implementation of 20mph speed limits on residential roads.	and participation in the GLA air quality audit for schools. Community engagement via Royal Greenwich Better Together meetings. Promotion of Clean Air Day, Schools Car- Free Day and National Car-Free Day.
Havering	ASR submitted on time. One diffusion tube site closed in 2017. AQAP up to date (recently		Undertaking air quality modelling and additional indicative AQMesh monitoring to better understand air quality within the borough.		Drafting AQ SPG for Havering, scheduled for adoption in 2018/9. - Planning conditions in place to require Air Quality Neutral, AQ Assessments, dust monitoring, ultra-low NOx		Adoption of Public Space Protection Orders around four schools, to prevent dangerous and illegal parking. - Engagement with schools via Miles the Mole air quality campaign, and the

	adopted June 2018).				boilers, NRMM, CHP and Biomass, and electric car charging points.		TfL STARS travel planning program Promote airTEXT.
Lewisham	ASR submitted on time. Three new diffusion tube sites introduced to monitoring network in 2017. AQAP up to date.	All lease cars are hybrid/electric. - 48 trucks will be updated to Euro VI during 17/18. - Driver training to comply with driver CPC regulations.	Improvement and introduction of green spaces, including the opening of Charlottenberg Park in New Cross and Surrey Canal Linear Park in Deptford. - Investigating road closures around school times at three pilot school locations, and already in place at a fourth school. - Quietway 1 completed and further work on Waterlink Way cycle route on-going.	Requiring developments to submit a Delivery and Servicing Plan. - Update of procurement policies to require silver FORS accreditation. - MAQF project at Evelyn Street to evaluate the possibility of freight consolidation.	Development of a policy to strengthen enforcement of NRMM, Air Quality Neutral requirements, energy assessments and CHP and biomass policies. - Development of a Zonal Construction Logistic Framework for the Evelyn Street Corridor.	All roads to include 20mph zones. - Promotion of car clubs and provision of car club bays. - Parking permits discounts for lower emission vehicles. - Installation of EV charge points. - Increased provision of cycle parking.	Hosted the MRC Festival 2017 "Our Air, Your Health", and preparing for the 2018 Lewisham Air Quality Conference and School Air Quality Event. - Development and preparation of the Lewisham Air App Development of a School's Air Quality Accreditation Scheme Air Quality master- class provided to Councillors by Kings College London

			On-going road layout changes along the Crofton Park area of the Brockley corridor.				Coordination with public health. - Engagement with local businesses following successful Defra Cleaner Villages application. - Promotion of airTEXT - Engagement with local schools on the TfL STARS travel planning program, and via anti-idling campaigns.
Newham	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring), but PM ₁₀ dust monitors	Continue to trial the use of LPG fuelled and LPG/petrol dual fuelled vehicles. - Continue with plans to retrofit all larger diesel vehicles with CRT.	Borough requires London City Airport to undertake their own air quality monitoring and implement an independent AQAP. - Environmental improvement works at major junctions	Support initiatives to transfer freight from roads to rail and waterway – e.g. planning application recently granted for a construction facility utilising Peruvian Warf for deliveries.	All approved major planning applications must meet Mayor's AQ neutral and CHP standards. - Actively encouraging alternate zero carbon energy	Installation of EV charge points (40 residential lamp column electric chargers and 20 free standing chargers (which charge two vehicles at a time). - Promotion and support of car clubs.	Promotion of airTEXT. - Engagement with local schools on the TfL STARS programme. - Co-ordination with public health.

upgraded to	including Stratford	_	sources in new	_	-
BAMs in 2018.	High Street,	Roadside vehicle	developments such	Continued	Continued
-	providing urban	emissions checks	as ground and air	expansion of	implementation of
AQAP out of	greening and	for HGVs and	source heat pumps.	Controlled Parking	the Safer Routes to
date but	enlargement of	LGVs.	-	Zones.	School programme.
currently being	pedestrian spaces		Require dust	-	
updated.	and Cycleway' s.		monitoring for major	Continue UTCS	
-	-		planning	traffic monitoring to	
Preparations are	Improving the		applications to	ensure traffic flow is	
underway to	attractiveness,		provide guidance for	optimised.	
declare a	safety and security		construction sites.	-	
borough-wide	of the Greenway		-	Extension of the	
AQMA in 2019	footpath/cycleway (following the		Continue to regulate	cycle superhighway,	
for exceedance	Northern Outfall		industrial processes	and continued work	
of the annual	Sewer) as part of		in relation to	to provide safe and	
mean objective	the 'Quietways		emissions and air	sufficient cycle	
for NO ₂ .	Program'.		quality.	routes and parking.	
	3			-	
				Publication of the	
				Newham 2018-2015	
				Cycling Strategy.	
				_	
				Provision of free	
				cycling proficiency	
				training for children	
				and adults.	

	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - AQAP recently updated and awaiting final approval.	Member of the Freight Transport Association with Truck Excellence accreditation. - Exploring possibility of obtaining gold FORS accreditation for Council fleet. - Accelerate uptake of Euro VI vehicles into fleet. - Increase the number of electric and hybrid vehicles in fleet to comply with ULEZ standards. - Smarter Driver	Green infrastructure through MAQF and Section 106 funding. - Low Emission Neighbourhoods (match funded support from GLA).	Require suppliers with large fleets to be Bronze FORS accredited. - Explore freight consolidation for deliveries to Council buildings.	Minimise emissions from construction and operation of new developments by enforcing SPG, NRMM, CHP and biomass, and AQ Neutral policies. Promoting and delivering energy efficiency retrofitting projects in public buildings as part of the GLA RE:FIT programme.	Anti-idling enforcement and campaigns. - Free or discounted parking for EVs. - Installation of EV charge points. Increased provision of cycling and pedestrian infrastructure. - Surcharge on diesel vehicles for CPZs and resident permits. - Traffic flow measures.	Coordination with public health. - Engagement with local schools, businesses, community groups and healthcare providers. - Promotion of airTEXT. - Encourage schools to join the TfL STARS travel planning program. - Anti-idling campaigns.
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Tower Hamlets	ASR submitted on time.	Joining the FORS scheme in 2018, aiming for bronze	Continued work towards implementation of	Establishment of a constructor's forum, currently	Implementation of the GLA SPG and NRMM	Procurement of EV charge points.	Launch of the "Breathe Clean"
	One diffusion tube monitoring site closed in 2017. AQAP up to date.	aiming for bronze to be achieved in 2018/9. Requirement for suppliers to have attained minimum of silver FORS accreditation as part of fleet procurement. Review of fleet to be carried out.	implementation of the City Fringe LEN in partnership with Hackney and Islington.	exploring CLOCS systems.	nRMM requirements for major developments via planning conditions.	Increased provision of cycle parking. Introduction of a cycle hire scheme for council staff.	campaign in March 2018. - Engagement with schools on the TfL STARS travel planning programme, air quality and pollution audits, anti- idling schemes, and a theatre project. - Engagement with local businesses via the ZEN project. - Coordination with public health team.
							AirTEXT.

Summary – East London

AQ monitoring and core statutory duties

Borough-wide AQMAs are declared for exceedances of the annual mean NO_2 objective and 24-hour mean PM_{10} objective in all east London boroughs, with the exception of Newham. Additionally, Barking and Dagenham has an AQMA declared for exceedance of the hourly NO_2 objective and Bexley has an AQMA declared for exceedance of the annual mean PM_{10} objective. Newham is making preparations to declare a borough-wide AQMA for exceedance of the annual mean NO_2 objective in 2019. AQAPs are up to date for Greenwich, Havering, Lewisham and Tower Hamlets, and the remaining boroughs are all currently in the process of updating their AQAPs.

All east London boroughs submitted their 2018 ASRs on time. The 2017 monitoring data for the east London boroughs indicate some improvement towards improving NO_2 concentrations, with all but Barking and Dagenham demonstrating exceedances of the annual mean NO_2 objective in 2017. Bexley, Havering, Lewisham, and Tower Hamlets demonstrate partial improvement in NO_2 concentrations in the last seven years, whilst Greenwich and Redbridge demonstrate only a slight improvement. All boroughs but Tower Hamlets are compliant with the NO_2 hourly mean objective in 2017. Compliance is also demonstrated across the east London boroughs with concentrations of PM_{10} and $PM_{2.5}$ being below objective levels and all boroughs demonstrating clear improvement in the last seven years.

PM_{2.5} was monitored at 16 automatic sites in east London in 2017. Bexley monitors PM_{2.5} at all four automatic sites in the borough (two urban background, one suburban background and one kerbside site). Greenwich monitors PM_{2.5} at six sites (one suburban, five roadside), and a seventh additional roadside site opened in October 2017. PM_{2.5} is also monitored at one roadside site in Havering, one roadside site in Lewisham, one urban background and one urban traffic site in Redbridge, and one roadside site in Tower Hamlets.

Barking and Dagenham, Bexley, Newham and Redbridge all appear to have maintained their existing levels of monitoring, whilst Greenwich, Havering, Lewisham and Tower Hamlets have all made minor changes to their diffusion tube networks in 2017.

Fleet improvements

There are several programmes delivering improvements in fleet emissions This includes programmes designed to ensure fleet vehicles meet a certain Euro class and/or FORS accreditation in Bexley, Greenwich, Lewisham, Redbridge and Tower Hamlets, increased use of electric/hybrid vehicles in Redbridge, eco-driving training in Lewisham and Redbridge, and CRT retrofitting in Newham. Redbridge is a member of the Freight Transport Association with Truck Excellence accreditation, and Greenwich is trialling the use of electric refuse vehicles.

Local measures

Key local initiatives involve a variety of measures to address local pollution hotspots. These include the Missing Link scheme, Trafalgar Road Improvements and Woodlands Crescent Road closure in Greenwich. Bexley, Lewisham and Newham have implemented cycle Quietways, and Lewisham is also implementing

ongoing road layout changes along Crofton Park. Redbridge, Bexley, Lewisham and Newham are implementing green infrastructure improvements/installation. Tower Hamlets continues to work towards implementation of the City Fringe Low Emissions Neighbourhood in partnership with Hackney and Islington.

Delivery servicing and freight

There are various projects in place in Bexley, Greenwich, Lewisham and Redbridge to explore out of hours deliveries, zero emission deliveries and freight consolidation. Greenwich, Lewisham and Redbridge require suppliers to have a FORS or EcoStars accreditation. Barking and Dagenham and Newham are encouraging the use of the River Thames as a freight corridor through planning conditions. Lewisham requires developers to submit Delivery and Servicing Plans. Tower Hamlets has established a constructor's forum which is currently exploring implementation of CLOCS systems.

Emissions for development and buildings

All boroughs have indicated that developments will be required to comply with planning conditions including the Mayor's AQ neutral standard, Section 106 agreements, NRMM conditions, conditions to regulate CHP/biomass, dust monitoring and/or air quality assessments. Havering is drafting its own SPG for air quality, scheduled for adoption in 2018/9. Newham is actively encouraging new developments to use alternate zero carbon energy sources. Redbridge is also promoting and delivering energy efficiency retrofitting as part of the GLA RE:FIT programme, and Lewisham is developing a Zonal Construction Logistic Framework for the Evelyn Street Corridor.

Cleaner transport

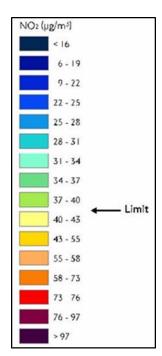
There are many active and successful projects promoting sustainable transport. Many boroughs are promoting and/or implementing schemes to improve pedestrian and cycling infrastructure, provide EV charging points, improve public transport links and services, and enforce/raise awareness about anti-idling. Greenwich and Lewisham are implementing 20mph speed limit zones, and Lewisham and Barking and Dagenham are supporting local car clubs. Lewisham and Redbridge are implementing differential costs for parking permits depending on vehicle type. Newham continue to optimise traffic flow via UTCS and Greenwich continues to implement its Low Emission Neighbourhood project.

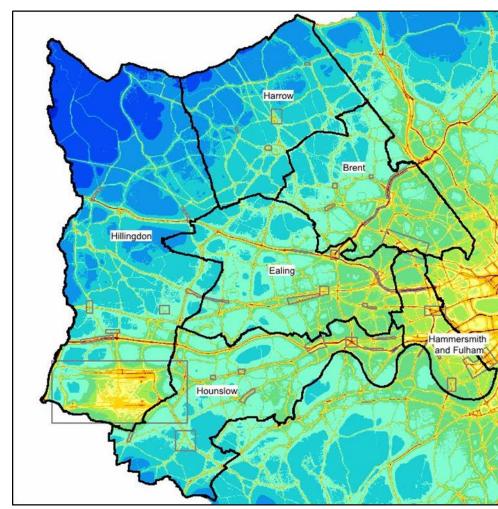
Public health and awareness raising

Most east London boroughs engage with local schools and businesses, coordinate with public health and continue to promote the London airTEXT service. There have also been several additional awareness raising campaigns and events, including the Royal Greenwich "Better Together" community engagement meetings; the MRC "Our Air, Your Health" festival, 2018 Lewisham Air Quality Conference, 2018 School Air Quality Event and an air quality masterclass for Councillors by Kings College London in Lewisham; anti-idling campaigns in Bexley and Redbridge; the Sustrans "Active Travel" and Living Streets "Walk to School" campaigns in Barking and Dagenham; and the "Breathe Clean" campaign in Tower Hamlets. Lewisham have also developed a School Air Quality Accreditation Scheme and the "Lewisham Air" App.

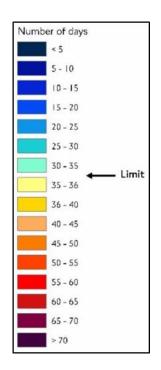
West London

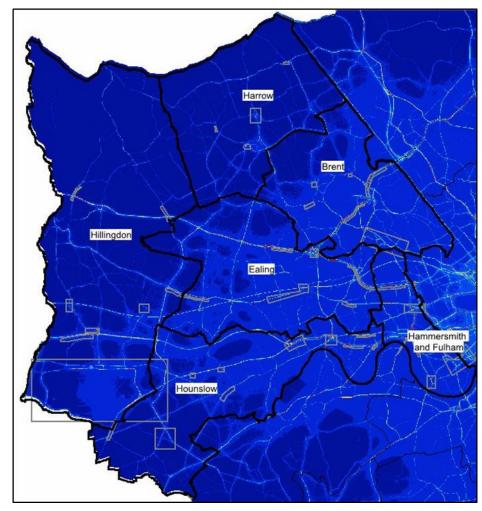
Current air quality focus areas and modelled annual mean NO₂ concentrations (2013)





Number of days exceeding the daily mean PM_{10} objective (2013)





Source: London Atmospheric Emissions Inventory 2013

Air quality summary – West London

Borough	AQAP Date	AQMA		Focus Areas	No. auto	omatic site	es	No.	Measure	d exceeda	ances in 2	017		7 year	trend
	Dute	Borough Wide?	Declared for	Aleas	NO ₂	PM ₁₀	PM 2.5	tube sites	NO ₂ Annual	NO ₂ Hourly	PM ₁₀	PM ₁₀ Daily	PM _{2.5}	NO ₂	PM ₁₀
Brent	2015	N	NO ₂ annual PM ₁₀ 24h	7	4	4	1	27	26	1	0	1	N/R*		
Ealing	2018	Υ	NO ₂ annual PM ₁₀ 24h	8	4	5	0	61	33	0	0	0	-		
Hammersmith & Fulham	2018	Υ	NO ₂ annual/1h PM ₁₀ 24h annual	6	1	1	0	36	21	1	0	0	-		
Harrow**	-	Y	NO ₂ annual PM ₁₀ 24h	5 (2015)	2 (2015)	2 (2015)	-	8 (2015)	-	-	-	-	-	-	-
Hillingdon	2018 review	N	NO ₂ annual	12	10	9	5	39	15	0	0	0	0		
Hounslow	2018 draft	Υ	NO₂ annual	6	7	7	0	48	28	1	0	0	-		

Key

AQAP status	Exceedance status (by pollutant)	Trends
New AQAP <5yrs old	Below objective	Clear Improvement – All sites recorded lower concentrations in 2017 compared to 2011 data, with no exceedances in 2017.
AQAP under review	Above objectives but improved from previous years	Partial Improvement – Most sites recorded lower concentrations in 2017 compared to 2011 data, however exceedances remain.
AQAP >5yrs old	Above objective	Slight Improvement – Although many sites may show may show improvement, some sites are recording higher concentrations in 2017 compared to 2011 data.

^{*} Not reported in 2018 ASR

^{**} No ASR submitted by Harrow in 2018 or 2017. Latest available data from 2015 provisionally included.

Key actions

ive	actions							
Во	rough	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
Brei	nt	ASR submitted late. One new automatic station in 2017. - AQAP up to date.	Provision and use of EV and hybrid vehicles in council fleet. - Planned upgrade of all Brent transport vehicles to Euro VI standard.	Exploring options to develop Low Emission Neighbourhoods with initial action targeted to four key areas – Neasden Town Centre, Church End, Wembley and Tokyngton and the Kilburn Regeneration Area. - Mayor's Air Quality Audits undertaken in two primary schools Planting of 30 trees in Neasden Town Centre Spring 2018.	Completion of a trial study to explore options for retiming HGV movements in Wembley town centre.	Regulation and inspection of polluting industrial processes. Construction Management Plans reviewed and agreed for 54 development sites in 2017 in accordance with the GLA SPG. Member of the London Low Emission Construction Partnership (LLECP). Inspection of sites to assess NRMM	Planned Low Emission Bus Zones in Edgware Road and the A5 corridor. - Consultation on plans to change parking fees to be variable according to vehicle/fuel type. Plans expected to be implemented in October 2018. - Installation of 30 EV charging points and planned installation of Rapid Chargers	Recruitment of Community Air Quality Champions to help raise local awareness. - Local campaigns on Clean Air Day and Car Free Day. - Walk on Wednesdays and Play Streets initiatives for schools. - Engagement with local businesses via workplace travel plans - Engagement with local schools on TfL STARS travel plans. -

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
					regulation compliance. - New major developments are required to use low and ultra-low emission standard practices, and initiatives to cut energy use are actively promoted.	Anti-Idling programme launched, including installation of signage at 60 hotpot locations, and provision of workshops in eight schools. - Provision of cycle training for adults and children Publication of a Walking Strategy in 2018.	Continued promotion of airTEXT.
Ealing	ASR submitted on time. - New (privately owned) automatic monitoring station opened November 2017.		Opening of the Ruislip Road East Quietway. - Landscaping scheme in Horn Lane.	Re-organisation of freight to support consolidation of deliveries by setting up new logistic facilities.	Developing enforcement of NRMM policies. - Enforcing CHP, biomass and air quality neutral policies.	Introduction of anti-idling signage at Horn Lane and Gypsy's Corner.	Cycling events and campaigns, including "Summer of Cycling" events. - Engagement with local schools on the STARS programme

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
	- AQAP recently updated and awaiting final approval.				Ensuring smaller developments use ultra-low NO _x boilers. - Implementation of two-year GLA RE:NEW/RE:FIT retrofitting program.	Introduction of Mobike dockless cycle hire. - Improved cycle and pedestrian access scheme to stations (Crossrail works). - Increasing EV fleet within car clubs.	and the Mayor's air quality audits. - Community engagement regarding anti-idling measures. - Public Health co-ordination and engagement. - "Play Street" (no vehicle) programs and events.
Hammersmith and Fulham	ASR submitted on time. - 20 new diffusion tube monitoring sites in 2017. - AQAP updated in 2018 and approved by	Implementing the Freight Strategy. Developing a green fleet strategy. - All heavy goods fleet vehicles meet	Closure of the Effie Road and Bishops King Road "rat runs". - Construction of Phase 1 of the Hammersmith Grove south	Delivery and Servicing Plan in development for the King Street shopping centre. - Proposal for a night freight scheme trial (from WestTrans).	Drafting a new Corporate Assets Environmental Sustainability Framework focusing on reducing energy demand of LBHF buildings.	Installation of 91 EV charging points. - Working with TfL to introduce two Low Emission Bus Zones -	Engaging with local schools via the STARS programme, air quality audits and "Urbanwise" teaching sessions. - Engaging with local businesses via the Low Emissions Logistics and Clean

Borough Cc St	Ionitoring nd other ore tatutory outies	Borough fleet actions	Localised solutions	Delivery servicing and freight	Emissions from developments and buildings	Cleaner transport	Public health and awareness raising
a pro	abinet. AQAP not accepted by GLA and council in rocess of working on required amendments.	Euro V or Euro VI standard.	low/zero emission zone. - Increasing urban vegetation by planting 54 new and 215 replacement street trees		New developments required to provide EV charging points. - Require new major developments to submit Air Quality Demolition Plans including dust risk assessments in line with the Mayor's SPG and NRMM criteria.	Construction of Quietway 2 and two new tiger crossings. - Installing 86 new cycle parking Hoops. - Free parking permits for EVs. - Member of the Low Emissions Logistics project with the Cross River Partnership (MAQF funded). - 20mph speed limits in place. - Promotion and support of car clubs.	Air Better Business projects, and securing funding for a Business Low Emissions Neighbourhood. - Promotion of airTEXT.

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
Harrow	2018 ASR not						
	submitted						
Hillingdon	ASR submitted on time. - Existing levels of monitoring maintained (no new monitoring). - AQAP out of date but currently being updated.		Increased provision of urban vegetation and the Early Years Centre green infrastructure project. - Increased provision of EV charging at Heathrow Airport. - Suite of measures specific to Heathrow Airport.	Establishment of a Sustainable Freight Group.	Continued use of S106 Agreements. Regulation of Part B processes. Best Practice Guidance advised on all relevant planning applications.	New cycle routes, increased provision of cycle parking, installation of "Brunel Bikes", and improved cycle paths and walkways. - New north-south bus route, currently being tested and expected to be introduced December 2019.	

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
			Tree planting schemes including the road corridors in Northwood Hills and Hayes town centres.			Strategic bus corridors project with the WestTrans partnership. - Promotion of an electric vehicle trial with 10 businesses participating. - Continued implementation of the no idling vehicles legislation. - Installation of a rapid EV charger in Uxbridge.	
Hounslow	ASR submitted on time. - PM _{2.5} monitoring introduced at two					Completion of phase 1 of Hounslow Road cycle path	Engagement with local schools including the Mayor's air quality audits.

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
	new sites, and NO ₂ monitoring at one new diffusion tube site in 2017. - AQAP up to date					infrastructure project.	
	(new plan published in 2018).						

Summary – West London

AQ monitoring and other Core Statutory Duties

All boroughs have AQMAs for annual mean NO_2 ; Brent, Ealing, Hammersmith and Fulham, and Harrow also have AQMAs declared for 24-hr PM_{10} . Hammersmith and Fulham also have declared for hourly NO_2 and annual PM_{10} . AQMAs are borough-wide except in Brent and Hillingdon.

In 2018 Harrow did not submit an ASR, and Brent submitted their ASR after the reporting deadline.

There continue to be exceedances of the annual mean NO_2 objective across the boroughs, and exceedances of the hourly NO_2 objective in Brent, Hammersmith and Fulham and Hounslow. All show partial improvements in NO_2 concentrations over the last seven years with the exception of Hounslow and Brent, which have only shown a slight improvement. Brent is the only borough with an exceedance of the 24-hour PM_{10} objective. There have been no exceedances of the annual mean PM_{10} objective and there has been clear improvement of PM_{10} concentrations in the last seven years in all boroughs except Brent, which still has results above objective levels.

PM_{2.5} is monitored at eight automatic sites in west London. Five monitoring sites are within Hillingdon (four at Heathrow Airport and one urban background site). Brent carried out PM_{2.5} monitoring at one roadside site, and PM_{2.5} monitoring started at two new sites in Hounslow in 2017. PM_{2.5} monitoring has historically taken place at one site in Ealing but was ceased in January 2016.

The majority of boroughs in west London have recently updated their AQAPs.

Fleet improvements

Hammersmith and Fulham and Brent appear to be alone in making progress towards key borough fleet actions in west London. In Hammersmith and Fulham these actions include implementing a Freight Strategy, developing a Green Fleet strategy, and ensuring all heavy goods fleet vehicles are of Euro V or higher standard. Brent provides and uses EV and hybrid vehicles in their council fleet, and are upgrading Brent Transport vehicles to Euro VI.

Local measures

Brent, Ealing, Hammersmith and Fulham and Hillingdon have various local projects in place to improve air quality. Brent is exploring options to develop Low Emission Neighbourhoods, have completed two air quality audits in schools, and plan to plant 30 trees in Neasden town centre. Ealing has opened a Quietway and has an ongoing landscaping scheme in Horn Lane. Hammersmith an Fulham has closed "rat run" roads, begun construction of the low/zero emission zone in Hammersmith Grove south, and is increasing urban vegetation. Hillingdon is increasing urban vegetation and implementing the Early Years Centre green infrastructure project. Hillingdon also has a suite of measures in place specific to Heathrow Airport.

Delivery servicing and freight

There is fairly limited information provided on local actions dealing with delivery servicing and freight in west London. Brent has completed a trial study exploring options for retiming HGV movements in Wembley town centre. Ealing is setting up new logistic facilities to support consolidation of deliveries. There is a Delivery and Servicing Plan in development for a shopping centre and a night freight scheme trial proposed for Hammersmith and Fulham. Hillingdon has established a Sustainable Freight Group to minimise emissions of freight deliveries to and from Heathrow.

Emissions for development and buildings

Brent, Ealing, Hammersmith and Fulham and Hillingdon are regulating emissions from development and buildings by enforcing the Mayor's AQ neutral, CHP and NRMM requirements, and Section 106 agreements. Ealing is also ensuring smaller developments use ultra-low NO_x boilers and implementing a two-year GLA RE:FIT retrofitting programme. Hammersmith and Fulham are drafting a policy to reduce energy demand in council buildings, and require new developments to provide EV charging points. Brent is a member of the London Low Emission Construction Partnership (LLECP), and is conducting site inspections to determine NRMM compliance. Brent is also requiring all new major developments to use low and ultra-low emission practices, and are promoting the switch way from fossil-fuel energy sources, such as the installation of solar panels.

Cleaner transport

Brent, Ealing, Hammersmith and Fulham, Hillingdon and Hounslow all have measures in place to promote sustainable transport, including increased provision or improvement of cycle and pedestrian infrastructure and walkways, installation of EV charging points, improvement of public transport and promotion of car clubs. Hammersmith and Fulham is also a member of the Low Emissions Logistics Project and has recently made permanent a 20mph speed limit. Hillingdon is implementing anti-idling legislation. Ealing has also introduced anti-idling signage at hotspot areas. Hillingdon is also promoting an EV trial, and is working towards the strategic bus corridor project through the WestTrans partnership. As part of the Mayor's plans for more Low Emission Bus Zones, new zones will be implemented in Brent on Edgware Road and the A5 corridor.

Public health and awareness raising

Brent, Ealing, Hammersmith and Fulham and Hounslow are engaging with schools on the TfL STARS travel planning scheme, and with air quality audits. Brent and Ealing have also run several campaigns including cycling events, anti-idling campaigns, and "Play Street" initiatives and other events. Hammersmith and Fulham continue to engage with local businesses via the Low Emissions Logistics and Clean Air Better Business projects. Hammersmith & Fulham and Brent continue to promote the London airTEXT service.

Air quality summary – Central London

Borough	AQAP Date	AQMA	QMA Focus Areas		No. automatic sites			No. diff tube sites	Measured exceedances in 2017					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	2018	N	NO ₂ annual PM ₁₀ 24h	7	2	2	0	88	70	0	0	0	-		
Kensington & Chelsea	2016	Υ	NO ₂ annual/1h PM ₁₀ annual/24h	3	6	3	2	34	23	2	0	0	0		
Islington	2018 draft	Υ	NO ₂ annual/1h PM ₁₀ 24h	4	2	2	0	19	11	0	0	0	-		
Lambeth	2017	Υ	NO ₂ annual/1h PM ₁₀ annual/24h	5	3	3	0	50	2 N/R*	1	0	1	-		
City of London	2017	Υ	NO ₂ annual/h PM ₁₀ 24h	2	3	3	3	51	45	2	0	0	0		

Local Authorities and Air Quality

Camden	2016	Υ	NO ₂ annual PM ₁₀ 24h	5	4	4	3	14	10	1	0	0	0	
Westminster	2011	Υ	NO ₂ annual/1h PM ₁₀ annual/24h	8	5	2	1	0	3	2	0	0	0	
Hackney	2015	Υ	NO ₂ annual/1h PM ₁₀ 24h	8	1	1	1	135	53	0	0	0	0	

^{*} Full data sets not included in 2018 ASR

Key

AQAP status	Exceedance status (by pollutant)	Trends
New AQAP <5yrs old	Below objective	Clear Improvement – All sites recorded lower concentrations in 2017 compared to 2011 data, with no exceedances in 2017.
AQAP under review	Above objectives but improved from previous years	Partial Improvement – Most sites recorded lower concentrations in 2017 compared to 2011 data, however exceedances remain.
AQAP >5yrs old	Above objective	Slight Improvement – Although many sites may show may show improvement, some sites are recording higher concentrations in 2017 compared to 2011 data.

Key actions

Key actions								
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	ASR submitted on time. - Existing levels of monitoring maintained but 20 diffusion tubes moved to new sites in 2017. - AQAP recently updated and undergoing consultation.	Replacement of commercial fleet vehicles with ULEZ complaint vehicles. - Introduction of telematics on commercial fleet. - Smarter driver training due to start in 2018.	Green screen installed at Goose Green School (MAQF funded). - Green infrastructure schemes at Crystal Palace Parade, Balfour Street and Shad Thames Streets. - Improvements to Focus Area 157 currently in design phase. - Exploring installation of green infrastructure at Focus Area 152. - Developed guidance for	Introduction of a Freight Forum and organisation of a waste consolidation project at Borough market.	New homes on all major developments to be zero carbon in line with London Plan. - All major developments to achieve AQ Neutral Standards. - Replacement of boilers with ultralow NOx boilers (1,894 replacements in 2017/8). - Ensure all NRMM is complaint with GLA SPG.	Installation of rapid EV chargers (TfL) and charging points on lampposts (Go Ultra Low Emissions Scheme). - Support TfL to deliver the Low Emission Bus corridor through Camberwell and Peckham. - Discounted parking permits for low emission vehicles. - Working with "Better Bankside" and "Team London" BIDs to promote alternative fuels	Public campaign on domestic/commercial heating fuel types. - Engagement with schools on the TfL STARS travel planning scheme and GLA air quality audits. - Engagement with local businesses on travel plans. - Promotion of airTEXT. - Completed air quality JSNA with Public Health. - Active travel. campaigns.	

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
Kensington	ASR submitted on	Review of council	schools on air quality. - Supported Better Bankside and Team London Bridge Mayor's Business LEN in the Borough High Street Area. Community	Engagement with the	Replace boilers in in	as part of the Borough LEN project.	- Four anti-idling campaigns Social media campaign around Bonfire Night.
and Chelsea	Existing levels of monitoring maintained (no apparent changes). - AQAP up to date (new plan published in 2016).	fleet vehicles and subsequent development of a Green Fleet Strategy. - Eco-driver training for Council and contracted drivers. - All waste fleet vehicles are Euro VI.	Community Kitchen Garden scheme. - Two green roofs installed in 2017. - Use green infrastructure to reduce pedestrians' exposure to poor air quality on Cromwell Road.	Cross River Partnership for the Low Emissions Logistic project (MAQF funded). The project engages with businesses to address air pollution and congestion stemming from their delivery and servicing vehicles.	council housing with ultra-low NO _x boilers. - Enforce compliance with the control of dust and emissions SPG and NRMM requirements on major developments. - Chelsea Pilot study to monitor if construction is compliant with	Promotion of Solution of Solution Promotion of Cycling with 2,691 training sessions for adults and Children. - Completion of Phase 1 and development of Phase 2 cycling routes.	Campaign with the Sustainable Travel Team. - Engagement with schools on travel plans, air quality audits, anti-idling action days and educational sessions. - Continued promotion of the airTEXT service.

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
					Planning, Environmental Health, Highways policies and legislation - Enforce CHP/biomass policy requirements. - Require new homes in major residential developments to be "zero carbon" in line with the London Plan. - Require developers to contribute to local air quality improvements through \$106 agreements.	Enforce anti- idling and display signage. A dedicated officer now oversees anti-idling enforcement. - Design of 12 new two-way cycling schemes. - Identified locations for Advance Stop Lines for cyclists.	Continued participation in the Clean Air Better Business programme (MAQF), which is implemented by the Cross River Partnership.
Islington	ASR submitted on time.	Continued upgrading of fleet	Archway junction work completed including new	Member of the London Borough Consolidation	New Code of Practice for	Diesel surcharge on visitor and	Continued engagement with schools regarding

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
	Existing levels of monitoring maintained (no apparent changes). - AQAP recently updated and ready for consultation.	vehicles to Euro V1.	segregated cycle lanes. Consultations carried out for work at Highbury Corner and Old Street junctions. Expansion of the City Fringe Zero Emissions Network (ZEN), and development of the new Archway ZEN. Green infrastructure to be installed as part of Archway Business LEN, and ZEN.	Centre and looking for opportunities to expand the scheme.	Construction Sites developed.	residential parking. - Provision of 97 new cycle parking stands and two pilot bike hangars. - Walking maps created for four schools highlighting low pollution routes. - Installation of EV charging points.	travel plans and air quality initiatives including antiidling events, an educational theatre programme, and cycling ability courses. - Anti-idling events as part of the Idling Action London Scheme Promotion of airTEXT Archway ZEN event for Car Free Day 2017.
City of London	ASR submitted on time.	Purchase of eight EVs in 2017 and continued trial of a range of EVs	Feasibility study for reducing air pollution in Beech Street in 2017 as	Developing Delivery and Service Plans through the LEN programme.	Air Quality Supplementary Planning Document published in 2017.	Implementation of the Low Emission Neighbourhood (LEN).	Continued promotion of the CityAir app. -

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
	Cheapside Business Alliance diffusion tubes removed from the network and four sites added in 2017. - AQAP up to date.	including a refuse collection vehicle. Policy in place to not purchase diesel vehicles unless there is no suitable non-diesel alternative. Regular green driver training for the majority of staff and subcontractors.	part of the LEN programme. - Further greening of the Sir John Cass primary school on the perimeter adjacent to Aldgate, in addition changes to road layout at Aldgate to move traffic away from the school.	Trial of zero emission cargo bikes around the Smithfield Market area.	Partner of the London Low Emission Construction Partnership project and NRMM compliance checking project. Require all major developments to submit air quality assessments, air quality neutral assessments, and adhere to the Mayor's SPG.	Supporting implementation of the ULEZ. Installation of rapid EV charge points. Installation of secure cycle parking. Anti-idling signage.	Anti-idling campaign with quarterly action days. - Engagement with local businesses as part of the LEN and with the Cheapside Business Alliance. - Bi-monthly air quality newsletter and air quality twitter account. - Development of an Air Quality Communications strategy. - Events to promote national clean air day 2017.

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
Lambeth	ASR submitted on time. - Existing levels of monitoring maintained. - AQAP up to date.	Obtain Gold FORS accreditation for fleet by March 2022. Procuring zero and low-emission vehicles where possible. Smarter driver training.	Implementation of a green screen at a school in an Air Quality Focus Area. LEN feasibility study for Vauxhall, and further studies commissioned for Brixton, Streatham, Waterloo and Clapham. Recommendation made for the Wandsworth Tree Warden scheme to be implemented in Lambeth.	Guide developed to consider air quality during procurement process. Completion of a feasibility study for a joint Freight consolidation project.	Inspection and review of all LAPPC and environmental permitting installations to confirm compliance. - Member of a project led by Merton and funded by the MAQF to enforce NRMM. - Member of the London Low Emission Construction Partnership. - Implementation of AQ Neutral policy, CHP, biomass and ultra-low NO _x boiler requirements through the borough's Air	Clean Bus Corridor along the A23, launched December 2017. Road layout alterations to encourage walking and cycling, e.g. the Ruskin Park to Kennington Park Greenway Phase 2 and Quietway 5. Installation of EV charge point and rapid charge points. Work with car clubs to install EV charge points and increase use of EVs in fleet.	Engagement and coordination with public health including publication of the Air Quality JNSA in 2018, and a leaflet for the website. Launch of the "Better Air" campaign during the first Lambeth Clean Air Week. "Try before you bike" cycling promotion scheme. Anti-idling events and surveys as part of joint London project. Engagement with schools on the TfL STARS program, as

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
					Quality Guidance Note. - Replacement of 303 boilers in the first half of 2017. - Promoting the GLA RE:NEW and joining the RE:FIT schemes.		part of the borough's Air Quality Engagement Project. - Engagement with neighbourhood planning forums on specific policies and plans. - Car free day event. - Promotion of airTEXT.
Camden	ASR submitted on time. - Existing levels of monitoring maintained. - AQAP up to date.	Ensure Camden's contractor Green Vehicle Fleet Standard is implemented. - FORS "champions", maintaining a Gold accreditation for		'Click. Collect. Clean Air.' personal deliveries campaign with Hatton Garden BID. - Develop the London Boroughs Consolidation Centre (LBCC).	Ongoing regulation of Part B Installations emission control. - Developers must adhere to the GLA's SPG and AQ Neutral policies	Trialling a 12 month anti-idling enforcement pilot scheme. - Wellbeing walks delivered by CRP, Camden Town Unlimited and Urban Partners	Continued engagement with local schools with school travel plans, STARS, and providing air quality toolkits. - On-going engagement and

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 borough's fleet.		Project part of MAQF 2.	Ensure compliance with NRMM. - S106 agreements require CLOCS and FORS standard for vehicles operating on construction sites. - Member of the London Low Emission Construction Partnership.	Installation of EV charging points.	coordination with public health. - Engagement with local businesses via the CRP Clean Air Better Business Project, and the Camden Climate Change Alliance. - New "Clean Air for Camden" campaign. - Promotion of airTEXT. - Anti-idling engagement project.
Westminster	ASR submitted on time.	Development of an updated Green Fleet policy.	Consulting on plans for the transformation of Oxford Street as part of	Promoting Delivery Service Plans as part of the "Cleaner Air	Require developers to undertake Air Quality Neutral Assessments and submit an air	Promotion of car clubs, and requiring the new car club contractor to	Continued engagement with schools including TfL STARS programme, cycle

Borougl	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
	A new automatic monitoring site has been installed in Covent Garden, and the Victoria monitoring site was temporarily relocated in 2017 (data not included in report). - AQAP out of date but currently being updated.	Safe and Fuel Efficient Driver Training for council drivers.	Westminster's Major Schemes Programme. Public realm projects for Aldwych and the Strand, including planned pedestrianisation. 20mph zones introduced at 38 schools. Continued implementation of projects through the Marylebone LEN, including parklets, urban realm improvements and air quality for business audits. -	Better Business" project.	pollution abatement and mitigation plan as necessary. Require major site developers to comply with the Westminster Code of Construction Practice, and with the GLA's SPG.	continue expansion of low emission vehicles. - Continued installation of EV charging points. - Fuel Efficient driver training via the CRP "Cleaner Air Better Business" project - Diesel surcharge for F-zone parking. - Development of a new Walking Strategy and Active Westminster Strategy. - Trialling PCN enforcement for	and pedestrian training, and car free days. - #DontBeldle campaign. - Coordination and engagement with public health. - Engagement with local businesses via the "Clean Air Better Business" programme. - Promotion of airTEXT.

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
			Support of the Northbank BID in its business LEN.			unnecessary idling.	
Hackney	ASR submitted on time. - 75 new diffusion tubes added to network in 2017. - AQAP up to date.	The MAQF Fleet project has seen the updating of the Council Staff Travel Plan hierarchy, launch of a bike pool scheme for staff, procurement of 30 EVs in 2017/18, and installation of EV charging points for fleet use.	Implementation of the Low Emission Neighbourhood (LEN) and Neighbourhood of the Future (NoF) projects in Green Action Zone area 1. The LEN has delivered three public realm schemes to improve walking and cycling conditions in Rivington Street, Garden Walk and Bowling Green Walk.		Publication of Sustainable Design and Construction SPG. - Planning process requirements include low NO _x boiler, CHP and Air Quality Neutral conditions.	Increased provision of cycle parking and hangars. - Sections of the Super Cycle Highway (SC1) have been completed along Pitfield Street. - Consultation completed for Quietway 2.	Public engagement via the Zero Emissions Network (dissemination through social media, face to face visits and through workplaces). - Engagement with schools through the TfL STARS programme, air quality audits and monitoring. - Continued promotion of airTEXT. - "Bike Around the Borough" mass

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
			Zero Emissions Network project in				participation cycle event.
			Shoreditch.				-
							Coordination with
							public health developing a new
							Joint Health and Wellbeing Strategy,
							Air Quality JSNA,
							and a new Air Quality Project.
							-
							Engagement with businesses via the
							ZEN Shoreditch project.

Summary – Central London

AQ monitoring

All central London boroughs have borough-wide AQMAs declared for exceedance of the annual mean NO_2 objective and the 24-hour PM_{10} objective, except Southwark, where the AQMAs do not cover the whole borough. Kensington and Chelsea, Islington, Lambeth, City of London, Westminster and Hackney additionally have AQMAs declared for exceedance of the hourly NO_2 objective and the annual PM_{10} objective.

All central London Boroughs submitted ASRs on time. 2017 monitoring data demonstrate exceedances of the annual mean NO_2 objective in all central London Boroughs, and of the hourly NO_2 objective in all but Southwark, Islington and Hackney. Camden may wish to consider declaring an AQMA for hourly NO_2 in light of the continued exceedances of this objective. There were no measured exceedances of the 24-hour or annual mean PM_{10} objectives, except for one site in Lambeth (exceedance of the 24-hour mean PM_{10} objective). Central London had 10 $PM_{2.5}$ monitoring sites in 2017, none of which recorded an exceedance during 2017.

Seven year trends indicate partial improvement of NO_2 concentrations at Southwark, Islington, Camden, Westminster and Hackney, and only slight improvement of NO_2 concentrations in Kensington and Chelsea, Lambeth and City of London. All boroughs have demonstrated clear improvement in PM_{10} concentrations in the last seven years, although improvement is only partial in Lambeth and the City of London.

There are eight automatic monitoring sites for $PM_{2.5}$ in central London. There are two $PM_{2.5}$ automatic monitoring sites in Kensington and Chelsea (one AURN urban background and one roadside site), two in City of London (one urban background and one kerbside), three in Camden (one urban background, one roadside and one kerbside), one AURN kerbside rise in Westminster and one roadside site in Hackney. There is no $PM_{2.5}$ monitoring in Southwark, Islington or Lambeth.

The majority of AQAPs have been recently updated in 2016, 2017 or 2018. Changes have been made to monitoring strategies in most boroughs, with the exception of Kensington and Chelsea, Islington and Lambeth. It is noted that Hackney has made substantial changes to their diffusion tube network, including the addition of 75 new tubes in 2017.

Fleet improvements

There is a range of policies adopted for council and contractor vehicle procurement. This includes procuring zero and low emission/ULEZ compliant vehicles in Southwark, Lambeth and Hackney, upgrading vehicles to be Euro VI in Kensington and Chelsea and Islington, purchasing and trialling EVs in City of London, developing Green Vehicle Fleet strategies in Kensington and Chelsea and Westminster, and implementing Green Vehicles Fleet Standards in Camden.

Westminster, Lambeth, City of London, Kensington and Chelsea and Southwark have smarter/eco driver training programmes in place for fleet drivers. Camden is maintaining its Gold FORS accreditation for its

fleet, with the title of FORS "Champions", and Lambeth has plans in place to secure Gold FORS accreditation by March 2022.

Local measures

Low Emission Neighbourhood programmes are already in place in the City of London, Southwark, Westminster and Hackney, and feasibility studies are underway for possible LENs in Lambeth. The City Fringe Zero Emissions Network (ZEN) in Islington is to be expanded, and the new Archway ZEN is also underway. A ZEN project is also underway for Shoreditch in Hackney. Westminster is consulting on plans for the transformation of Oxford Street as part of the Westminster Major Schemes Programme, and is implementing public realm improvement projects for Aldwych and the Strand.

Green infrastructure schemes including green walls, green rood, community gardens and planting of urban vegetation are taking place in Southwark, Kensington and Chelsea, Islington, City of London, Lambeth and Westminster.

Delivery servicing and freight

There are a range of projects and schemes to reduce emissions from delivery and servicing in central London, including consolidation schemes (Southwark's Borough Market consolidation project, and Islington and Camden's London Borough Consolidation Centre project), and encouraging businesses to develop Delivery and Servicing Plans (through the City of London LEN programme, and the "Cleaner Air Better Business" project). Additionally, Lambeth has completed a feasibility study for a joint freight consolidation project.

Emissions for development and buildings

City of London, Lambeth, and Camden are partners in the LLECP which seeks to encourage the uptake of best practice in pollution reduction measures within the construction industry.

Central London boroughs are enforcing consideration of air quality in planning conditions through the GLA's SPG, Air Quality Neutral standards, CHP and biomass policy requirements, S106 agreements, and NRMM requirements. Most councils are also replacing existing boilers with ultra-low NO_x boilers.

Westminster and Islington have developed codes of practice for construction sites, and City of London has produced an Air Quality Supplementary Planning Document. Southwark and Kensington and Chelsea are requiring all new homes on major developments to be zero-carbon in line with the London Plan.

Cleaner transport

All central London boroughs are encouraging and promoting sustainable travel by a range of measures including: increased provision and improvement of cycle routes and parking, cycle training, anti-idling signage and enforcement, Low Emission Bus Corridors (in Southwark and Lambeth), installation of EV charge points, differential parking permits charges based on vehicle fuel type, car clubs, and measures to promote and encourage walking.

Public health and awareness raising

Most central London boroughs have been engaging with local schools on the TfL STARS travel planning scheme and via the GLA air quality audits. Boroughs are also engaging with Public Health promoting the airTEXT service and developing JSNAs (Southwark, Lambeth and Hackney), and with local businesses via LEN and ZEN programmes. Kensington and Chelsea, Camden, and Westminster continue to engage with the Mayor's Clean Air Better Business programme, initiated via the Cross River Partnership, involving collaboration between Business Improvement Districts (BIDs) and the boroughs.

Most boroughs have carried out campaigns and event days to raise awareness about anti-idling. There have also been campaigns in Camden ("Clean Air for Camden" campaign), Lambeth ("Better Air" campaign and "Try before you bike" scheme), as well as various events around national Clean Air Day and Car Free Day.

Public engagement is also being carried out via social media campaigns, an air quality newsletter and CityAir app in the City of London, and neighbourhood planning forums in Lambeth.

CONCLUSIONS

The main conclusions have been divided into sections to provide an update on the key elements of the annual report.

Annual Status Reports

This report summarises 32 Annual Status Reports (ASR) submitted by London Borough Councils in 2018. It provides an opportunity to reflect upon how the reporting system has been implemented by the boroughs, and highlights their successes and challenges in improving local air quality. The LLAQM process was refined in 2015 to minimise unnecessary administrative burdens on boroughs. In 2017 most have engaged well in the LLAQM process, with nearly all ASRs submitted on schedule (30 on time, 2 late), and only one ASR not submitted (Harrow).

Monitoring

The monitoring data presented in this year's ASRs indicate that most boroughs have reported slight improvements in air quality in 2017, although there are many remaining areas of exceedance across all but one borough. In terms of NO₂ monitoring, there were 115 automatic sites (an increase of five sites compared to 2015) and 1178 non-automatic sites (an increase of 283 sites compared to 2015) operating across all boroughs in 2017. Over the last seven years, 24 boroughs reported slight reductions in NO₂ concentrations, but still have areas of exceedance. Seven boroughs demonstrated higher NO₂ concentrations than some years ago at some sites, with many exceedances remaining. Only one borough (Barking and Dagenham) recorded full compliance with NO₂ objectives in 2017.

There were 642 recorded exceedances of NO_2 annual mean objective (588 diffusion tubes and 54 automatic site records). There were 13 exceedances of NO_2 1-hour mean objective recorded across automatic sites (across 10 boroughs, mainly concentrated in central and west boroughs). However, there were 21 boroughs that did not exceed the NO_2 1-hour mean (mostly across the north, south, and east boroughs). There has been a more notable reduction in NO_2 1-hour mean exceedances; in 2015 22 boroughs recorded exceedances. Whilst there have been some improvements in NO_2 concentrations across London, half of all monitoring sites recorded exceedances (many of which were still far above objective limits). It should be noted that there were many NO_2 annual mean exceedances above $60\mu g/m^3$, which indicates there are likely to be more NO_2 1-hour exceedances than were recorded by automatic monitors.

Although there are only a small number of NO_2 1-hour exceedances, it should be noted that some occurred within boroughs that have AQMA declared only for the annual mean objective. Where this is the case, boroughs are encouraged to review the current status of their AQMA designations and notify Defra and the GLA accordingly.

Many boroughs have good networks of diffusion tubes, which are complemented by automatic monitoring stations. All boroughs operate automatic monitors for NO_2 , with many having two or three sites. There are two boroughs (Bexley and Westminster) that only have automatic networks, with no diffusion tube monitoring. It is recommended that all boroughs maintain or expand their diffusion tube networks where possible. It is recommended that Bexley and Westminster boroughs consider introducing networks of diffusion tubes to provide additional coverage. It is advised that boroughs with

only one automatic NO_2 monitor (Bromley, Kingston, Merton, Hammersmith and Fulham, and Hackney) seek additional resources to improve understanding of the extent of NO_2 emissions in their communities.

PM₁₀ results are far more positive than NO₂. During 2017 there were 96 PM₁₀ automatic monitors (an increase of three monitors since 2015). All but one borough (Haringey) monitored this pollutant, with most boroughs having at least two or three operational sites. During 2017 there were no recorded exceedances of PM₁₀ annual mean objective. Similarly, across 2017 there is a positive outlook for the PM₁₀ 24-hour mean objective, with only two exceedances recorded across two boroughs (Brent and Lambeth). All other boroughs recorded concentrations below objective limits. This is an improvement compared to 2015 data, where there were two boroughs exceeding the PM₁₀ annual mean objective and three boroughs exceeding PM₁₀ 24-hour mean objective. In line with 2017's results, the general trend across the last seven years is promising for PM₁₀, with all but three boroughs (City of London, Lambeth and Brent) reporting lower concentrations with no exceedances in 2017. It is recommended that all boroughs maintain their PM₁₀ monitoring networks. While this pollutant is following a downward trend across London it is advised that boroughs with no PM₁₀ monitors, or those with only one operational site, increase their networks for this pollutant. Furthermore, some boroughs may wish to review the current status of their PM₁₀ monitors. Many are not sited in "worst-case" locations - this should be taken into account when looking at data.

In the last few years councils have dedicated more resources to monitoring PM_{2.5} emissions. In 2017 there were 37 automatic monitors across 16 boroughs measuring PM_{2.5}. In line with PM₁₀ results, there were no exceedances of PM_{2.5} recorded at any monitoring site in London. However, these results should also be treated with caution as they represent a relatively small amount of coverage, given the size of London. Additionally, many of these are not placed at "worst-case" locations. It is recommended that boroughs continue to maintain their PM_{2.5} monitors, and those that do not have any are encouraged to introduce a suitable level of coverage. North and south London have the least monitors (south London has four, and north London has none). Similarly to PM₁₀, while national objectives have been achieved for this pollutant, there is no safe concentration for this pollutant, and London is committed to meeting World Health Organisation (WHO) targets (as opposed to the legal limit, which is twice the WHO target) for this pollutant by 2030. Councils are encouraged to dedicate further resources to better understand the extent and impact this pollutant has on their populations; with the aiming to mitigate these emissions as far and as soon as possible.

The LLAQM Technical Guidance (LLAQM:TG16) confirms that air quality monitoring is a crucial part of the LLAQM system. Local authorities are encouraged to maintain and where possible expand existing networks, which provide critical information on long term trends. In accordance with the Technical Guidance any future amendments to local monitoring strategies should be reviewed with the following purposes in mind:

- To determine the extent of the exceedances at relevant locations (ideally locating monitors at points representative of relevant exposure, or in "worst-case" locations).
- To ensure that monitoring is taken place at air quality focus areas and other key locations where exceedances of the objectives are likely.

• To prepare for re-assessment of the AQMA boundary in 2020.

London boroughs are required to seek approval from the GLA for any proposal to remove, move, or add automatic monitoring stations to their networks. This must be provided in writing three months before any proposed changes are scheduled to take place.

In terms of reporting on air quality monitoring data there was some variation between boroughs with some providing no trend data from which to draw comparisons. This was particularly so with data from non-automatic monitoring sites. Furthermore, some boroughs did not provide monthly diffusion tube data. There were also a number of cases where QA/QC procedures were not carried out in line with LLAQM:TG16. It is important that future reports are as transparent as possible, including providing example calculations/ screenshots for any data corrections (namely, NO₂ distance corrections and annualisation).

The fact that current AQMA designations may not be accurate reinforces the need for the planned review of AQMA boundaries in 2020 and highlights the benefits of maintaining an effective monitoring network. Boroughs should ensure that current monitoring locations provide sufficient coverage of the GLA air quality focus areas and other key locations where exceedances of the objectives are likely, as recommended in the current Technical Guidance.

Action Planning

There has been good progress updating AQAPs and implementing measures in 2017. Most AQAPs are up to date (20 fully updated, 12 being updated, and one out of date (Harrow)).

Councils are advised to incorporate measures specific to the air quality focus areas, and other pollution hotspots into their AQAPs. Future ASRs should contain more detailed discussions regarding progress towards each measure and the possible effects they are having (if quantifiable). These documents should act as a key reference point for members of the public and all interested parties, and should be informative. It is important to remember that Action Plans require clear milestones and outcomes that can be reviewed during and following implementation.

Whilst there is a minor downward trend in NO_2 concentrations across most parts of London there remain hundreds of hotspots where there are exceedances. In many cases these remain far above objective limits, in some cases NO_2 annual mean concentration of >120 μ g/m³ has been recorded (three times the limit). Boroughs, whilst having made good progress on AQAPs recently, have a significant challenge in improving local air quality which complies with national objective limits. The resources dedicated to developing and implementing measures will result in proportional reductions, and significant actions are required to bring NO_2 within compliance limits. Councils are also encouraged to develop further specific measures to address $PM_{2.5}$ emissions.

RECOMMENDATIONS

- Monitoring provision across each borough should be reviewed to ensure optimal spatial coverage
 and to verify the location and extent of air quality focus areas and other local hotspots. This is
 important in terms of refining the air quality model and for evaluating predicted trends against
 actual pollution trends.
- Councils should continue to develop and progress their AQAPs, introducing clear quantifiable and targeted measures, and giving priority to the key selected and foundation measures outlined in the GLA Air Quality Action Matrix, and any additional measures which are expected to achieve the greatest reductions in concentrations.
- New AQAPs and AQAP revisions should include specific measures designed to address air quality focus areas and local hotspots, in addition to measures to address PM_{2.5}.
- AQAP revisions should ensure that progress against measures can be evaluated effectively using Key Performance Indicators and targets wherever possible, and include defined timescales for implementation/completion.
- AQAP updates, including wider discussions of trends and challenges should also be clearly communicated in future ASRs.
- This review of borough monitoring supports the LLAQM requirement that boroughs should reassess their AQMA boundaries in 2020 as a means of refining and updating the air quality 'picture' in London boroughs. From a review of the monitoring data some boroughs (such as Camden and Southwark) should consider before 2020 whether they need to declare for an exceedance of the hourly NO₂ objective.
- Trend data from the past seven years of monitoring should be supplied within all ASRs.
- Ensure all necessary corrections are applied to data presented in the ASR, and include example calculations.

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Chinese

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Vietnamese

Nếu bạn muốn có văn bản tài liệu này bằng ngôn ngữ của mình, hãy liên hệ theo số điện thoại hoặc địa chỉ dưới đây.

Greek

Hindi

यदि आप इस दस्तावेज की प्रति अपनी भाषा में चाहते हैं, तो कृपया निम्नलिखित नंबर पर फोन करें अथवा नीचे दिये गये पते पर संपर्क करें

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি (কপি) চান, তা হলে নীচের ফোন্ নম্বরে বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Urdu

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

Turkish

Bu belgenin kendi dilinizde hazırlanmış bir nüshasını edinmek için, lütfen aşağıdaki telefon numarasını arayınız veya adrese başvurunuz.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ: اگر آپ اِس دستاویز کی نقل اپنی زبان میں چاھتے ھیں، تو براہ کرم نیچے دئے گئے نمبر پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى الاتصال برقم الهاتف أو مراسلة العنوان أدناه

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં જોઇતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાદ્યો.