

London Borough of Lambeth
Air Quality Annual Status Report for 2015
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This report provides a detailed overview of air quality in Lambeth during 2015. It has been produced to meet the requirements of the London Local Air Quality Management statutory process¹.

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¹ LLAQM Policy and Technical Guidance 2016 (LLAQM.TG(16)). <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-boroughs>

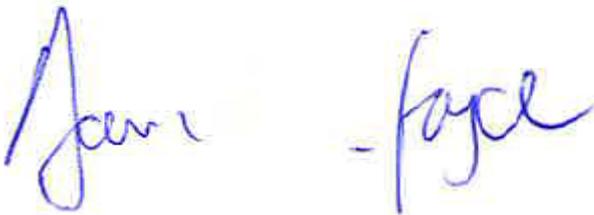
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Abbreviations

AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
BEB	Buildings Emission Benchmark
CAB	Cleaner Air Borough
CAZ	Central Activity Zone
EV	Electric Vehicle
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LLAQM	London Local Air Quality Management
NRMM	Non-Road Mobile Machinery
PM ₁₀	Particulate matter less than 10 micron in diameter
PM _{2.5}	Particulate matter less than 2.5 micron in diameter
TEB	Transport Emissions Benchmark
TfL	Transport for London

Table A. Summary of National Air Quality Standards and Objectives

Pollutant	Objective (UK)	Averaging Period	Date¹
Nitrogen dioxide - NO ₂	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
	40 µg m ⁻³	Annual mean	31 Dec 2005
Particles - PM ₁₀	50 µg m ⁻³ not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
	40 µg m ⁻³	Annual mean	31 Dec 2004
Particles - PM _{2.5}	25 µg m ⁻³	Annual mean	2020
	Target of 15% reduction in concentration at urban background locations	3 year mean	Between 2010 and 2020
Sulphur Dioxide (SO ₂)	266 µg m ⁻³ not to be exceeded more than 35 times a year	15 minute mean	31 Dec 2005
	350 µg m ⁻³ not to be exceeded more than 24 times a year	1 hour mean	31 Dec 2004
	125 µg m ⁻³ not to be exceeded more than 3 times a year	24 hour mean	31 Dec 2004

Note: ¹by which to be achieved and maintained thereafter

1. Air Quality Monitoring

1.1 *Locations*

Table B. Details of Automatic Monitoring Sites for 2015

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA?	Distance from monitoring site to relevant exposure (m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Monitoring technique
LB4	Brixton Road	531070	175593	Kerbside	Y	1	1	2	NO ₂ , PM ₁₀	BAM1020, NO _x Analyser,
LB5	Vauxhall Bondway Interchange	530317	177952	Industrial ^a	Y	5	3	2	NO ₂ , PM ₁₀ , SO ₂	BAM1020, NO _x Analyser, SO ₂ Analyser
LB6	Streatham Green	529971	171570	Background	Y	15	15	2	NO ₂ , PM ₁₀	BAM1020, NO _x Analyser

^a The GLA's advisory note on Lambeth's Updated and Screening Assessment 2015 advised this site should be reclassified as Kerbside. However, King's College London has informed us about a previous agreement with Defra that this site should be classified as Industrial due to a nearby PM₁₀ emissions source from the tube station.

Table C. Details of Non-Automatic Monitoring Sites for 2015

In 2015 Lambeth did not carry out any continuous diffusion tube monitoring.

1.2 *Comparison of Monitoring Results with AQOs*

The results presented are after adjustments for "annualisation" and for distance to a location of relevant public exposure, the details of which are described in Appendix A.

Table D. Annual Mean NO₂ Ratified and Bias-adjusted Monitoring Results (µg^{m-3})

Site ID	Site type	Valid data capture for monitoring period % ^a	Valid data capture 2015 % ^b	Annual Mean Concentration (µg ^{m-3})						
				2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c
LB4 (Brixton Road)	Automatic	N/A	98%	<u>177</u>	<u>173</u>	<u>158</u>	<u>162</u>	<u>112</u>	<u>149</u>	<u>129</u>
LB5 (Vauxhall Bondway Interchange)	Automatic	N/A	99%	<u>77</u>	<u>77</u>	<u>77</u>	<u>72</u>	<u>62 (64.9)</u>	<u>71</u>	<u>75</u>
LB6 (Streatham Green)	Automatic	N/A	86%	Station not in operation	46	38	37	43 (44.9)	37 (38.1)	29

Notes: Exceedance of the NO₂ annual mean AQO of 40 µg^{m-3} are shown in **bold**.

NO₂ annual means in excess of 60 µg m⁻³, indicating a potential exceedance of the NO₂ hourly mean AQS objective are shown in **bold and underlined**.

^a data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%

The LB4 kerbside site at Brixton Road significantly exceeded the objective in 2015, by over 220%. It has exceeded the objective for all years reported and consistently monitored some of the highest concentrations in London. The results from 2015 indicate a slight fall in NO₂ annual mean concentrations compared with all previous years since 2009, except 2013, with the overall trend suggesting a gradual fall. However, the NO₂ concentration levels are significant at this location. Brixton Road itself is a busy shopping street in Lambeth, with offices and other accommodation at first floor and above. This site is located at the kerbside near traffic lights and hence it monitors emissions from close to vehicle exhausts. The station is also located in a street canyon. This location has a high footfall and is usually busy throughout the day with shoppers and school children travelling through the area.

The LB5 industrial site at Vauxhall Bondway Interchange exceeded the objective in 2015 and for all years reported with annual mean concentrations that range between 62 and 77 $\mu\text{g m}^{-3}$ since 2009. This site is located close to the busy Bondway gyratory and a major bus station. The nearest receptors at this site are people using the bus interchange. However, the area is due to be redeveloped in coming years.

The background site at Streatham Green (LB6) did not exceed the annual mean objective of 40 $\mu\text{g m}^{-3}$ for 2015, with an annual mean concentration of 29 $\mu\text{g m}^{-3}$. This result is significantly lower than in previous years when the monitored results were either borderline or exceeding the AQO. There is no clear reason as to why concentrations in this location have decreased but this will be monitored closely in future years.

Table E. NO₂ Automatic Monitor Results: Comparison with 1-hour Mean Objective

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2015 % ^b	Number of Hourly Means > 200 $\mu\text{g m}^{-3}$						
			2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c
LB4 (Brixton Road)	N/A	98%	2185	2677	1632	2182	250	1732	883
LB5 (Vauxhall Bondway Interchange)	N/A	99%	12	17	4	4 (182)	0 (161)	3	4
LB6 (Streatham Green)	N/A	86%	Station not in operation	0	0	0	2 (143)	0 (135)	0

Notes: Exceedance of the NO₂ short term AQO of 200 $\mu\text{g m}^{-3}$ over the permitted 18 days per year are shown in **bold**.

^a data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%

LB4 Brixton Road exceeded the hourly mean objective by an extremely large margin. 2015 shows a fall, but more data from monitoring in future years will show if this represents an overall trend.

Table F. Annual Mean PM10 Automatic Monitoring Results ($\mu\text{g}\text{m}^{-3}$)

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2015 % ^b	Annual Mean Concentration ($\mu\text{g}\text{m}^{-3}$)						
			2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c
LB4 (Brixton Road)	N/A	74%	34	33	37	39	32 (32.3)	30 (29.8)	28 (26.9) ^c
LB5 (Vauxhall Bondway Interchange)	N/A	89%	42	43	43	29 ^d	38 (39.2)	40	43
LB6 (Streatham Green)	N/A	32%	Station not in operation	23	27	27	17 (17.6)	24 (22.8)	18.2 (19) ^c

Notes: Exceedance of the PM₁₀ annual mean AQO of 40 $\mu\text{g}\text{m}^{-3}$ are shown in **bold**.

^a data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% - see Appendix A.3. for details

^d Data capture was 29%

At Brixton Road LB4 kerbside monitoring station the annual mean PM₁₀ objective was met. It was at a similar level or slightly lower than in previous years, although it is too early to detect a decreasing trend.

Vauxhall Bondway Interchange LB5 industrial site marginally exceeded the objective in 2015 and is slightly higher than the previous three years' results.

At Streatham Green LB6 urban background monitoring station the annual mean PM₁₀ objective was met but the annual mean concentration of PM₁₀ remains at a similar level to previous years with no apparent decreasing trend.

Table G. PM₁₀ Automatic Monitor Results: Comparison with 24-Hour Mean Objective

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2015 % ^b	Number of Daily Means > 50 µg m ⁻³						
			2009 ^c	2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c
LB4 (Brixton Road)	N/A	74%	31	15	36	55	13 (46.6)	12 (43.7)	11 (39.5)
LB5 (Vauxhall Bondway Interchange)	N/A	89%	65	72	89	15 ^d	22 (53.8)	62	73 (60.6)
LB6 (Streatham Green)	N/A	32%	In operation since Aug 2009	6	20 (46.8)	12 (41.7)	4 (27.4)	10 (40.44)	1 (34.5)

Notes: Exceedance of the PM₁₀ short term AQO of 50 µg m⁻³ over the permitted 35 days per year or where the 90.4th percentile exceeds 50 µg m⁻³ are shown in **bold**. Where the period of valid data is less than 90% of a full year, the 90.4th percentile is shown in brackets after the number of exceedances.

^a data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% - see Appendix A.3. for details.

^d Data capture was 29%

At Brixton Road LB4 kerbside monitoring station the daily mean objective for PM₁₀ was met. It was at a similar level or slightly lower than in previous years, although it is too early to detect a decreasing trend.

Vauxhall Bondway Interchange LB5 industrial site exceeded the objective for 2015 and is slightly higher than the previous three years' results.

At Streatham Green LB6 urban background monitoring station the number of daily mean objective for PM₁₀ was met and was lower than in previous years.

Table H. SO₂ Automatic Monitor Results for 2015: Comparison with Objectives

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2015 % ^b	Number of: ^c		
			15-minute means > 266 µgm ⁻³	1-hour mean > 350 µgm ⁻³	24-hour mean > 125 µgm ⁻³
LB5 (Vauxhall Cross Interchange)	N/A	99%	0	0	0

Exceedances of the SO₂ AQOs are shown in **bold** (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed / year)

^a data capture for the monitoring period, in cases where monitoring was only carried out for part of the year

^b data capture for the full calendar year (e.g. if monitoring was carried out for six months the maximum data capture for the full calendar year would be 50%)

^c Means should be "annualised" as in Box 3.2 of TG(09) (<http://laqm.defra.gov.uk/technical-guidance/index.html?d=page=38>), if valid data capture is less than 75%

There were no exceedances of SO₂ concentrations which is in line with previous years' results.

2. Action to Improve Air Quality

Table I. Commitment to Cleaner Air Borough Criteria

Theme	Criteria	Achieved (Y/N)	Evidence
1. Political leadership	1.a Pledged to become a Cleaner Air for London Borough (at cabinet level) by taking significant action to improve local air quality and signing up to specific delivery targets.	Y	<i>No evidence required</i>
	1.b Provided an up-to-date Air Quality Action Plan (AQAP), fully incorporated into LIP funding and core strategies.	Y/N	<ul style="list-style-type: none"> The Lambeth Local Plan 2015 was adopted, which contains many policies that seek to improve air quality, for example, sustainable travel, open spaces, sustainable design and construction We are currently rewriting our AQAP and we hope the statutory 3 month consultation will start around August 2016 We are also currently in the process of updating our Community Plan and Transport strategy; both documents will consider air quality LIP funding was used in 2015 to implement a range of projects, which help to improve air quality, such as cycling and road safety
2. Taking action	2.a Taken decisive action to address air pollution, especially where human exposure and vulnerability (e.g. schools, older people, hospitals etc) is highest.	Y	<ul style="list-style-type: none"> In 2015 we carried out an MAQF1 anti-idling project, which included schools We closed Estretham Road for a day, as part of European Mobility Week: http://www.lambeth.gov.uk/events/car-free-day-0 We have been in contact with Guy's and St Thomas' to discuss joint working as part of our MAQF2 Freight Consolidation project Loop Labs carried out air quality awareness work in schools in Lambeth during 2015
	2.b Developed plans for business engagement (including optimising deliveries and supply chain), retrofitting public buildings using the RE:FIT framework, integrating no engine idling awareness raising into the work of civil enforcement officers, (etc etc)	Y	<ul style="list-style-type: none"> In 2015 we started work on our MAQF2 Freight Consolidation project. We are inviting businesses to join this project We are also carrying out a project using funds from the New Homes bonus to investigate delivery options for Brixton

	2.c	Integrated transport and air quality, including by improving traffic flows on borough roads to reduce stop/start conditions	Y	<ul style="list-style-type: none"> During 2015 we consulted on a borough-wide 20mph speed limit, which was introduced in April 2016 http://www.lambeth.gov.uk/parking-transport-and-streets/streets-and-roads/lambeth-goes-20mph
	2.d	Made additional resources available to improve local air quality, including by pooling its collective resources (s106 funding, LIPs, parking revenue, etc).	Y	<ul style="list-style-type: none"> LIP funding has always been used for projects, which help to reduce air pollution, such as modal shift to cycling Suggestions in our draft AQAP include creating a Clean Air Action Fund and exploring if CIL money could be used if its charging schedule is reviewed
3. Leading by example	3.a	Invested sufficient resources to complement and drive action from others	Y	<ul style="list-style-type: none"> Air Quality in Lambeth is headed by the Sustainability Team, which includes the Sustainability Manager, Sustainability Officer and Flood Risk Officer. All three officers have worked on Air Quality projects In 2015 we also employed an Air Quality Project Officer, as part of MAQF1, to carry out an anti-idling project Other officers in the council, such as Transport, Planning and Public Health also work on initiatives which help to improve air quality, reduce exposure and raise awareness We have a budget of £31k per year within Sustainability for projects to improve air quality and raise awareness. We also have other budgets for air quality monitoring, Part B enforcement, etc.
	3.b	Maintained an appropriate monitoring network so that air quality impacts within the borough can be properly understood	Y	<ul style="list-style-type: none"> Lambeth has three air quality monitoring stations and we are part of the London Air Quality Monitoring Network
	3.c	Reduced emissions from council operations, including from buildings, vehicles and all activities.	Y	<ul style="list-style-type: none"> The <i>Your New Town Hall</i> project developed significantly in 2015. The vast majority of council officers started to work from only four buildings, meaning there is less travelling to meetings, reduction in NO_x from boilers, etc. When the new town hall is opened, nearly all officers will work from only two key buildings We continue to encourage cycling, by having bikes available on all floors at Blue Star House for staff use and paying £25 a month to any officer who only uses a bike for travelling to/from and while at work
	3.d	Adopted a procurement code which reduces emissions from its own and its suppliers activities, including from buildings and vehicles operated by and on their behalf (e.g. rubbish trucks).	N	<ul style="list-style-type: none"> This action has been included in our draft AQAP and we hope the statutory 3 month consultation will start around August 2016

4. Using the planning system	4.a	Fully implemented the Mayor's policies relating to air quality neutral, combined heat and power and biomass.	Y/N	<ul style="list-style-type: none"> The London Plan policies mentioned are considered when making decisions on planning applications. Further action in relation to this has been included in our draft AQAP
	4.b	Collected s106 from new developments to ensure air quality neutral development, <i>where possible</i>	N	<ul style="list-style-type: none"> This action has been included in our draft AQAP and we hope the statutory 3 month consultation will start around August 2016
	4.c	Provided additional enforcement of construction and demolition guidance, with regular checks on medium and high risk building sites.	N	<ul style="list-style-type: none"> This action has been included in our draft AQAP and we hope the statutory 3 month consultation will start around August 2016
5. Integrating air quality into the public health system	5	Included air quality in the borough's Health and Wellbeing Strategy and/or the Joint Strategic Needs Assessment	N	<ul style="list-style-type: none"> This action has been included in our draft AQAP and we hope the statutory 3 month consultation will start around August 2016
6. Informing the public	6.a	Raised awareness about air quality locally	Y	<ul style="list-style-type: none"> We contribute towards AirTEXT We blogged about the Breathe Better Together campaign https://lambethenvironment.wordpress.com/category/air-quality-2/page/2/ We created an anti-idling webpage http://love.lambeth.gov.uk/antiidling/ We tweeted about not idling and created a postcard https://pbs.twimg.com/media/CYxCJ5tWkAEnHUw.jpg

2.1 Air Quality Action Plan Progress

Table K provides a brief summary of Lambeth's progress against the Air Quality Action Plan (AQAP), showing progress made this year. New projects which commenced in 2015 are shown at the bottom of the table. We are currently reviewing our Air Quality Action Plan, which will be sent out for public consultation later this year. The renewed AQAP will set out air quality measures and actions which Lambeth intends to implement between 2017 and 2022. Once finalised, the Plan will be available on Lambeth's website.

Table J. Delivery of Air Quality Action Plan Measures

Measure	Action	Progress	Further information
Low Emission Zone	Low Emission Zone The Council will continue to work with the GLA and other London Boroughs in assessing the feasibility of introducing a London –wide LEZ	<ul style="list-style-type: none"> • Emissions/Concentration data • Benefits • Negative impacts / Complaints <p>This action is complete, as the LEZ has been introduced. Lambeth is now working with TfL and the GLA to discuss widening/strengthening the ULEZ/LEZ. Lambeth represents the <i>Central London Air Quality Cluster Group</i> as part of the ULEZ/LEZ Borough Engagement Group.</p>	
Promotion of cleaner vehicle technologies and alternative fuels	The Council will promote the environmental and financial benefits to both its staff and other organisations through its travel plans strategy	<p>The Staff Travel Plan was implemented before 2015.</p> <p>In addition, Lambeth continues to provide pool bikes to staff to travel between buildings for meetings, pays £25 each month to officers who make all work journeys by bike and recently installed a new bike shed at Blue Star House. Lambeth works closely with schools in the borough as part of the STARS programme. In 2015 we</p>	http://www.looplabs.org/case-studies/

		arranged for LoopLabs to work with some schools in the borough to raise air quality awareness and encourage pester power towards modal shift	
Replace Council's own vehicle fleet with green fuelled fleet	Provide properly equipped cars/ vehicles (using zero or very low emission fuels) for duties where it is deemed essential for a vehicle to be used.	When writing this plan the target was for all fleet diesel vehicles to meet Euro IV standards, which has now been achieved. In our draft AQAP, which we will be consulting on shortly, we are asking that council vehicles are only used when essential and raising this target, by asking for FORS Gold accreditation for our fleet, moving to Euro VI and 6 vehicles, etc.	Fleet diesel vehicles now all meet Euro IV standards.
Encourage greater availability of green fuels in borough	The Council will approach local fuel providers to encourage them to stock fuels such as LPG. Any new development including proposals for a filling station will be required through the planning system to stock LPG;	Previously a promotional leaflet was produced and circulated to local fuel providers. This action is now complete. In our draft AQAP we want to encourage even greener fuel and reduce vehicle use by developing electric charging points, reducing freight on our roads, and investigate installing Santander bikes at Brixton station	
Support a London wide	The Council will carry out vehicle emissions testing within its Air Quality Management Areas	This action is complete as the Council previously participated in the London wide emissions testing initiative. In 2015 Lambeth carried	

approach to Vehicle Emissions Testing	in order to enforce the vehicle emissions standards (with a target to carrying out 18 test days per year within the borough)	out an anti-idling campaign funded through MAQF1	
Implementation of traffic reduction measures	The Council endorse the concept of traffic reduction in Lambeth through policies in the UDP	This action is now complete as the UDP has been replaced by the Lambeth Local Plan. Our current Local Plan lists lots of measures to encourage sustainable transport and reducing traffic. We are also currently working on a freight reduction project as part of MAQF2	http://www.lambeth.gov.uk/planning-and-building-control/planning-policy/archived-local-plans http://www.lambeth.gov.uk/sites/default/files/pl-lambeth-local-plan-2015-web.pdf
Traffic reduction through land use planning	The Council will seek to reduce the impact of transport on the environment by coordinating land use and transport so as to reduce the need to travel, and by encouraging more use of public transport, walking cycling and less car use.	This action is complete. The Lambeth Local Plan encourages modal shift to sustainable transport	http://www.lambeth.gov.uk/sites/default/files/pl-lambeth-local-plan-2015-web.pdf
Recognises Congestion Charging as a method of direct traffic restraint	The Council is working with TfL and others to study in more detail the effects of congestion charging in North Lambeth and along the principal routes into the north of the Borough	This action is now complete. Lambeth is now working with TfL and the GLA to widen/strengthen the ULEZ/LEZ	
Lambeth and neighbouring	The Council is proposing a number of local actions	This action is now complete as the CCZ has been implemented.	

<p>boroughs will work with the GLA and TfL to maximise the within the congestion charge area of North Lambeth</p>	<p>through its UDP and LIP in support of the Mayor's congestion charging scheme. These include:</p> <p>A combination of area wide traffic management and street improvements to encourage through traffic to keep to the principal route network</p> <p>Review of Controlled Parking Zones in the north of the borough</p>	<p>Lambeth is now completing a new CPZ review and as part our draft AQAP considering introducing emission passed parking permits, discounted parking charges at parking meters based on emissions, etc.</p>	
<p>Lambeth will promote Workplace and School Travel Plans</p>	<p>Introduce travel information into induction packs</p> <p>Audit and improvement to walking routes between council offices</p>	<p>This action is complete. The Transport team engages with schools throughout the borough to develop travel plans. Lambeth has now reduced from 14 to just 4 key buildings, so the amount of journeys for work has reduced. Also as part of <i>Your New Town Hall</i> project, we will only have 2 key buildings, which will be joined</p>	
<p>The Council will manage the supply of parking spaces as a means of restricting traffic and</p>	<p>The Council seeks to prioritise the use of existing spaces for the disabled, local residents and essential business use.</p>	<p>As above Lambeth is now carrying out a new CPZ review and as part our draft AQAP considering introducing emission based parking permits, discounted parking charges at parking meters based on emissions, etc. We are also</p>	

<p>promoting sustainable choices</p>		<p>carrying out a freight consolidation project as part of MAQF2</p>	
<p>The Council will develop its Parking Enforcement Plan to discourage commuter traffic and improve bus journey times/reliability</p>	<p>The Council is currently developing a parking Enforcement Plan that aims to introduce consistent enforcement strategies across Lambeth</p>	<p>This action is now complete as the Lambeth Parking Plan was adopted. We have a robust enforcement team, which helps to encourage modal shift</p>	
<p>The Council will work with the TfL to promote and implement a package of enhanced, intensified and enforced bus priority measures in the most heavily used bus routes</p>	<p>Expansion of the Bus Priority Network throughout Lambeth</p> <p>CCTV roadside camera enforcement on busiest routes. Provision of more road space for buses and longer bus stop clearways (subject to impact on congestion). Extended bus lane operating hours. Bus Plus routes will be introduced along some of the most heavily used bus routes in Lambeth, which give enhanced bus priority</p>	<p>This action is now complete as the <i>London Bus Initiative</i> programme has finished. Lambeth has campaigned for TfL to clear up its bus fleet and now looks forward to working with TfL and the new Mayor to introduce clean bus corridors and other air quality measures, which were recently announced</p>	

All bus routes will be effectively enforced	As above	This action is now complete as the <i>London Bus Initiative</i> programme has finished	As above
Lambeth is supporting and developing the Cross River Transit/London Tram scheme	Working with TfL/ GLA to develop the new Tram link from Camden to Brixton The Council will look at the possibility of extending the link from Brixton to Streatham and Norwood and possible extensions to the Croydon Tram link	Ongoing support and subject to funding	
Lambeth will work with the GLA and TfL in their programme of investment and expansion of the underground tube network as a means of enhancing more sustainable transport in London	The Council welcomes and supports the extension of the East London Line via Tulse Hill and Streatham to Wimbledon The Council will work with TfL to investigate the long term possibility of an additional extension of the East London Line to fit in with the Brixton hub proposals and the southwards extension of the Victoria Line to provide a new interchange at Herne Hill Station	Ongoing support and subject to funding	
Lambeth will pursue	The Council is developing a number of proposals to promote improved rail service in Lambeth	The council continues to promote a Crossrail2 station for Streatham	

<p>possibilities to improve rail services provision in the borough in order to promote rail travel as a viable alternative to the car</p>	<p>The Brixton Hub proposals Examining the feasibility of providing South London Line High Level platforms at Brixton Station Linking to this are proposals by the Mayor to develop the South London Line between Victoria and London Bridge</p>	<p>which will reduce road traffic emissions on the A23</p>	
<p>The Council supports river transport on the Thames as an alternative mode of transport for commuters and tourists</p>	<p>The Council will investigate the options for improved interchange facilities that both encourage greater passenger use, and transfer of freight from road to river to relieve road congestion</p>	<p>This action is complete. Policy T5 in the Lambeth Local Plan supports and promotes use of the River Thames as a strategic transport route for passengers and freight.</p>	
<p>Lambeth will continue to develop its Walking Strategy in order to improve the walking environment</p>	<p>Lambeth has set up a transport taskforce (Feet First) to promote walking and re-balance the priorities for action away from the car and towards pedestrians The Taskforce will identify the fine detail of those factors presently discouraging walking, such as poor lighting levels, footway conditions, poor pedestrian</p>	<p>The Feet First group no longer exists. However, Lambeth has a number of policies and initiatives to encourage modal shift to sustainable transport. This is a priority in our Local Plan. Also we have the Silver Cyclists group for citizens over 60. Lambeth also has a staff walking group which meets regularly</p>	

	safety and pedestrian signing, and propose ways in which these issues can be rectified		
Lambeth will work with TfL to encourage walking as a viable alternative to other forms of transport	<p>The Council is developing a walking map of Lambeth</p> <p>Lambeth is commissioning a study to develop a North South-South South Walking route in Lambeth</p> <p>TfL are developing an internet based journey planner that will include waking routes in addition to public transport options</p>	This action is now complete	
The Council will continue to develop its Walking Strategy to encourage children to walk to school as an alternative mode of transport	<p>Identify safe routes to school</p> <p>Improvements to physical road safety</p> <p>Road Safety Education</p> <p>Promoting national schemes such as Walk to School Week</p>	As part of our school safety programme, we regularly engage with schools to encourage children to walk. We have also encouraged children to walk to school as part of our Child Obesity programme	
The Council will continue to	The Council supports the continued development of the	The Council is working with TfL on the Quietways programme. We also	http://www.lambeth.gov.uk/parking-transport-and-streets/cycling/find-a-dr-bike-event

<p>carry out and support measures to promote and make cycling safer and more convenient</p>	<p>London Cycle Network throughout the borough</p> <p>Provide continuous and safe cycle networks and other facilities such as cycle parking – the aim is to reduce road anger and improve driver attitude so that all roads can be used by cyclists, but also to provide separate cycle lanes where traffic speeds are high</p> <p>The provision of separate cycle paths will be done by taking road space from motor vehicles rather than pedestrians and shared use of footpaths will only be considered where pedestrian safety can be maintained</p> <p>Improving facilities at public transport interchanges to ensure secure cycle parking at transport hubs and the council will lobby for spaces for bikes to be provided on trains</p> <p>Major road works and junction improvements will take into account the needs of the</p>	<p>offer Dr Bike sessions for residents to take their bikes to receive free cycle maintenance checks and advice. In addition, we offer cycling safety courses to staff and residents</p>	
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	cyclist, adapting infrastructure for improved cycle provision		
The Council will require developers to include cycle facilities within new developments and where appropriate encourage them to provide shower and changing facilities	<p>Cycling will be considered in all aspects of transport planning in accordance with the council's policy of developing a truly integrated transport system.</p> <p>Provision of secure and assessable cycle storage at new developments</p> <p>Provision of changing and shower facilities</p>	This is now included in Lambeth Local Plan (policy T3).	http://www.lambeth.gov.uk/sites/default/files/pl-lambeth-local-plan-2015-web.pdf
Lambeth will support the work of the Mayor to investigate methods for reducing emissions from diesel powered stock	The Council is supporting the programme of diesel replacement of rail freight stock through its liaison with SELTRANS	This action is now completed	
Lambeth welcomes the commitment in the Mayor's Strategy to take action to reduce	The Council will continue to work in partnership with other central London Boroughs (Central	The 4 th Stage Review and Assessment was completed.	

<p>particulate emissions</p>	<p>London Cluster Group) to support the work of the GLA to reduce particulate emissions throughout London</p> <p>The Council will produce a 4th Stage Review and Assessment of Air Quality in Lambeth which will specifically model existing and future levels of particulate pollution in the borough</p>	<p>Lambeth is a keen member of the Central London Air Quality Cluster Group and has attended every meeting during 2015. In 2016 we became the Group Leader for the Cluster Group. We are now working with other boroughs as much as possible, such as the joint MAQF2 anti-idling project led by City of London</p>	
<p>Lambeth welcomes and supports the environmental controls proposed for London wide airport development</p>	<p>Lambeth will give full consideration to the environmental, economic and transport implications of any future proposals for further development of Heathrow.</p>	<p>Lambeth has continued to be involved in pollution from aviation. We have commented on the consultations about Heathrow having a third runway</p>	
<p>The Council will continue to regulate pollution from industrial processes</p>	<p>Part B permitting / Statutory Nuisance</p> <p>Air Quality Review and Assessment</p>	<p>We are continuing to issue permits, conduct inspections and if necessary enforce for Part B installations</p>	
<p>Reduce emissions of VOCs from industry</p>	<p>Part B permitting of dry cleaners, small scale vehicle resprayers, degreasing operations</p>	<p>Please see the entry above</p>	

<p>Promote the best practices and procedures to ensure pollution emissions and dust generation is kept to a minimum during construction activities</p>	<p>Council to promote the uptake of the BRE Code of Construction Best Practice when finalised</p> <p>Ensure Air Quality is taken into account along with other material considerations in making decisions on development proposals</p>	<p>During 2015 Lambeth did not receive any complaints regarding dust emissions</p>	
<p>The Council will use its statutory nuisance powers to control smoke nuisance from bonfires</p>	<p>Statutory nuisance action to be taken in cases where such action is considered necessary and Appropriate</p> <p>Council to increase priority of bonfires complaints by improving response time. Target: same day response</p>	<p>Lambeth did not receive any complaints regarding bonfires in 2015</p>	
<p>The council will promote composting and recycling of waste to encourage greener methods of disposal</p>	<p>To recycle or compost 15% of household waste</p> <p>To ensure 100% of the population of Lambeth is either serviced by a kerbside collection of recyclables or lives within a kilometre of a recycling centre</p>	<p>This action is now complete. All residents have access to recycling and we have introduced a kerbside food waste collection service. Residents in estates are able to compost food and garden waste if they want to.</p>	

	To have the green box service available to all street domestic properties. To have 20% of households with gardens participate in home composting		
The Council will seek to use the cleanest conventional energy sources in its own buildings	The Council continue an ongoing programme of oil to gas conversion	In 2015 the Council moved from 14 down to 4 key buildings, which obviously reduces the amount of energy used. In addition, with the <i>Your New Town Hall</i> project we will only be using energy in two buildings	
The Council will introduce policies in its revised UDP to encourage high standards of energy efficiency and the use of renewable energy in developments through sustainable design principles	<p>The Council will: Require developers to consider sustainable design and resource efficient principles in new buildings in line with its Sustainable Construction Policy</p> <p>Encourage the use of natural ventilation and lighting and effective energy conservation and thermal insulation to conserve energy and reduce heat loss and air pollution</p> <p>Encourage new developments to meet the highest standards of sustainable design and</p>	This action is complete as the Lambeth Local Plan contains policies regarding energy and sustainable design and construction.	

	<p>construction, including the re-use of existing building stock where practicable</p> <p>Consider and require efficient local energy generating schemes where practicable</p> <p>Assess combined heat and power schemes (CHP) proposals using Customs and Excise “Good quality CHP” index and ensuring developers demonstrate that opportunities for utilising heat have been fully assessed</p>		
<p>Actions carried out by Lambeth but not formally part of our Air Quality Action Plan</p>			
<p>London Low Emission Construction Partnership (LLECP)</p>	<p>Help the construction industry to understand its impact on local air quality.</p> <p>Encourage the uptake of 'best in class' pollution reduction (abatement) measures.</p> <p>Improve pollution monitoring and make this data available</p>	<p>Lambeth, along with King’s College London and 5 other inner London boroughs, was a founding member of the LLECP. The project started in 2013 and was funded by MAQF1. In early 2016 the project received further funding in MAQF2, with 6 more London boroughs joining (12 in total).</p> <p>In Lambeth, LLECP worked with Nine Elms Northern Line Extension</p>	<p>http://www.llecp.org.uk/</p>

	<p>for construction sites in London.</p> <p>Help to fund 'best in class' abatement measures at construction sites.</p> <p>Evaluate the cost effectiveness of pollution abatement techniques.</p>	<p>developers Laing O'Rourke and Flo, reducing their dust emissions and trialling the use of low-emission hybrid portable generators. This resulted in the reduction of black carbon emissions and led to more hybrid generators being used by developers</p>	
Anti-Idling	<p>Identify idling hot spots in the borough</p> <p>Achieve greater understanding of reasons for idling</p> <p>Develop tools to influence behaviour change</p> <p>Raise awareness of health and environmental consequences of engine idling as part of Love Lambeth campaign</p>	<p>This project, funded by the MAQF1 is now completed.</p> <p>Lambeth is currently taking part in a wider idling awareness action funded by the MAQF2, in partnership with 10 other London boroughs.</p>	<p>http://love.lambeth.gov.uk/antiidling/</p>
Air Quality Guidance Note for developers	<p>Prepare Lambeth Air Quality Guidance Note for developers submitting planning applications for developments in Lambeth</p>	<p>Air Quality Guidance note prepared and is currently undergoing final internal approvals. It will then be published under the planning policy guidance notes section of the Lambeth website</p>	<p>https://www.lambeth.gov.uk/planning-and-building-control/planning-policy/supplementary-planning-documents-and-other-policy</p>

	Make air quality a key concern for planning officers at all stages of planning application process	Training for Planning Officers from 2016	
Low Emission Zone for Non-Road Mobile Machinery (NRMM)	<p>Add NRMM condition to all major applications in Lambeth</p> <p>Publish information on NRMM requirements on the planning applications section of the Lambeth website</p>	<p>Condition approved and used by planning officers</p> <p>Information added</p>	<p>www.nrmm.london</p> <p>http://www.lambeth.gov.uk/planning-and-building-control/planning-applications/submit-a-planning-application</p>

3. Planning Update and Other New Sources of Emissions

As mentioned in the above section on AQAP progress 'Actions carried out by Lambeth but not formally part of our Air Quality Action Plan' Lambeth has written an NRMM condition and has customised the GLA Planning Guidance Note for use in the borough by developers.

We are also part of an MAQF2 multi-borough project to raise awareness of and ultimately enforce the Low Emission Zone for NRMM across the borough.

3.1 *New or significantly changed industrial or other sources*

No new sources identified.

Appendix A Details of Monitoring Site QA/QC

A.1 Automatic Monitoring Sites

Routine calibrations of equipment and periodic site audits were carried out by Enviro Technology, through our contract with King's College London Environmental Research Group (KCL). Routine calibrations are scheduled for every two weeks. Site audits and services are carried out bi-yearly.

In June 2015 multiple problems with the BAM 1020 PM10 analyser were reported following a site audit at **Brixton Road LB4** monitoring station, resulting in 74% data capture in 2015. The problems were attributed to the BAM's age (over 13 years old) and included frequent tape breaks and inconsistent and overlapping sample spots due to faulty board stack as well as power resets and intermittent screen changes due to issues with the keypad driver board. A new BAM1020 analyser was installed at the site in December 2015.

Low PM₁₀ data capture (32%) at **Streatham Green LB6** is due to a fault which was not discovered until April 2016 when the data for 2015 was undergoing ratification. The instrument was over-reading by about 10 µg m⁻³ until an engineer recalibrated the flow. Due to this fault the data from this period was excluded.

PM₁₀ Monitoring Adjustment

The correction of 1/1.2 is applied to raw PM10 BAM data at an hourly basis so the fully ratified PM10 data is reference equivalent. This is done by KCL as we are part of the London Air Quality Network.

A.2 Diffusion Tube Quality Assurance / Quality Control

Not applicable.

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

Table K. Short-Term to Long-Term Monitoring Data Adjustment - PM₁₀ at Brixton Road LB4

Site	Site Type	Annual Mean (µg/m ³)	Period Mean (µg/m ³)	Ratio
Westminster - Horseferry Road (WM0)	Urban background	16.9	15.5	1.090
City of London - Sir John Cass School (CT3)	Urban background	22.8	23.6	0.966
Kensington and Chelsea - North Ken (KC1)	Urban background	18.7	17.5	1.068
Average				1.041

As mentioned in Appendix A.1 above, due to the age of BAM1020 at **Brixton Road LB4** monitoring station before its replacement in December 2015, PM₁₀ data capture was at 74% and therefore was annualised using methodology described in London Local Air Quality Management Technical Guidance LLAQM.TG(16). The estimate of annual mean was based on 26.9 µg/m³ mean for the period between 1st June and 1st December 2015, multiplied by the annualisation factor of 1.041 as derived from the table above. For annualisation purposes, it was not possible to choose urban background monitoring sites located in Lambeth's neighbouring boroughs as PM₁₀ data capture from all surrounding sites was under 85% minimum recommended by LAQM.TG(16). Urban background sites chosen for annualisation: Westminster (Horseferry Road WM0), City of London (Sir John Cass School, CT3) and Kensington and Chelsea (North Ken, KC1) had high data capture rates, are representative of typical

London urban background locations and are located within 6 miles radius from Brixton LB4, which is well within the recommended radius of under 50 miles.

Table L. Short-Term to Long-Term Monitoring Data Adjustment - PM₁₀ at Streatham Green LB6

Site	Site Type	Annual Mean (µg/m ³)	Period Mean (µg/m ³)	Ratio
Westminster - Horseferry Road (WM0)	Urban background	16.9	19.6	0.862
City of London - Sir John Cass School (CT3)	Urban background	22.8	21.4	1.065
Kensington and Chelsea -North Ken (KC1)	Urban background	18.7	19.8	0.944
Average				0.957

As mentioned in Appendix A.1 above, due to an instrument fault at **Streatham Green LB6** monitoring station, PM₁₀ data capture was at 32% and was therefore annualised. The estimate of annual mean was based on 19 µg/m³ mean for the period between 1st January and 1st May 2015, multiplied by the annualisation factor of 0.957 as derived from the table above. For annualisation purposes, it was not possible to choose

urban background monitoring sites located in Lambeth's neighbouring boroughs as PM₁₀ data capture from all surrounding sites was under 85% minimum recommended by LAQM.TG(16). Urban background sites chosen for annualisation: Westminster (Horseferry Road WM0), City of London (Sir John Cass School, CT3) and Kensington and Chelsea (North Ken, KC1) had high data capture rates, are representative of typical London urban background locations and are located within or under 10 miles radius from Streatham Green LB6, which is well within the recommended radius of under 50 miles.

Distance Adjustment

No distance adjustment required as all three monitoring sites are representative of public exposure.

Appendix B Full Monthly Diffusion Tube Results for 2015

Table M. NO₂ Diffusion Tube Results

Lambeth does not carry out continuous diffusion tube monitoring.