London Borough of Lambeth - Air Quality Annual Status Report 2020

Date of publication: August 2021

This report provides a detailed overview of air quality in London Borough of Lambeth during 2020. It has been produced to meet the requirements of the London Local Air Quality Management (LLAQM) statutory process[1].

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[1] LLAQM Policy and Technical Guidance 2019 (LLAQM.TG(19))

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Abbreviations

Abbreviation	Description
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQO	Air Quality Objective
CAB	Cleaner Air Borough
EV	Electric Vehicle
GLA	Greater London Authority
LAEI	London Atmospheric Emissions Inventory
LAQM	Local Air Quality Management
LLAQM	London Local Air Quality Management
MAQF	Mayor's Air Quality Fund
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
TfL	Transport for London

Table A. Summary of National Air Quality Standards and Objectives

Pollutant	Standard / Objective (UK)	Averaging Period	Date[2]
Nitrogen dioxide (NO_2)	200 µg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
Nitrogen dioxide (NO_2)	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
Particles (PM_{10})	40 µg m^{-3}	Annual mean	31 Dec 2004
Particles ($PM_{2.5}$)	25 µg m^{-3}	Annual mean	2020
Particles ($PM_{2.5}$)	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
Sulphur dioxide (SO_2)	350 µg m^{-3} not to be exceeded more than 24 times a year	1-hour mean	31 Dec 2004
Sulphur dioxide (SO_2)	125 µg m^{-3} mot to be exceeded more than 3 times a year	24-hour mean	31 Dec 2004

Table B. Summary of World Health Organisations Objectives

Pollutant	Objectives (WHO)	Averaging Period
Nitrogen dioxide (NO_2)	200 µg m^{-3}	1-hour mean
Nitrogen dioxide (NO_2)	40 µg m^{-3}	Annual mean
Particles (PM_{10})	50 µg m^{-3}	24-hour mean
Particles (PM_{10})	20 µg m^{-3}	Annual mean
Particles ($PM_{2.5}$)	10µg m^{-3}	Annual mean
Particles ($PM_{2.5}$)	25 µg m^{-3}	24-hour mean
Sulphur dioxide (SO_2)	20 µg m^{-3}	24-hour mean

[2] Date by which to be achieved by and maintained thereafter

1. Air Quality Monitoring

1.1 Locations

Lambeth has three automatic monitoring sites in Brixton (LB4), Vauxhall (LB5) and Streatham (LB6).

Table C. Details of Automatic Monitoring Sites for 2020

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance 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	0.5	0.5	2	NO_2, PM_{10}	BAM1020, NO_x Analyser
LB5	Vauxhall Bondway Interchange	530317	177952	Industrial	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	6	2	NO_2, PM_{10}	BAM1020, NO_x Analyser

In 2020, Lambeth continued to use diffusion tubes to monitor NO_2 across the borough. We now have 115 diffusion tubes installed across the borough. A visual map of our tubes can be seen below and found here.

Diffusion tubes installed across Lambeth

Diffusion tubes installed in Lambeth schools

Table D. Details of Non-Automatic Monitoring Sites for 2020

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA? If so, which AQMA?	Distance to Relevant Exposure (m)	Distance to Kerb of Nearest Road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Tube co-located with an automatic monitor (Y/N)
DT1	Brixton AQ Monitoring Station – co-located	531070	175593	*Kerbside*	*Y*	*0.5*	*0.5*	*2*	*NO_2*	*Y*
DT2	Brixton AQ Monitoring Station – co-located	531070	175593	*Kerbside*	*Y*	*0.5*	*0.5*	*2*	*NO_2*	*Y*
DT3	Brixton AQ Monitoring Station – co-located	531070	175593	*Kerbside*	*Y*	*0.5*	*0.5*	*2*	*NO_2*	*Y*
DT4	Waterloo Rd / Exton Street	*531139*	*180048*	*Roadside*	*Y*	*1*	*0.5*	*2.2*	*NO_2*	*N*
DT5	Waterloo Rd / Holmes Terrace	*531214*	*179907*	*Roadside*	*Y*	*2*	*0.5*	*2.2*	*NO_2*	*N*
DT6	98 The Cut	*531494*	*179951*	*Roadside*	*Y*	*1*	*0.5*	*2.2*	*NO_2*	*N*
DT7	278-282 Kennington Lane (between St. Oswald's Place and Vauxhall St)	*530817*	*178122*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT8	Archbishop Tenninson School, 55 Kennington Oval	*530868*	*177740*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT9	Alverstone House, Kennington Park Road	*531196*	*177653*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT10	Brixton Road/Prima Road	*531250*	*177464*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT11	13 Clapham Road outside Belgrave Hotel	*531093*	*177419*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT12	223 Clapham Road outside Richarsdon Court and Costcutter	*530404*	*176321*	*Roadside*	*Y*	*0.2*	*0.5*	*2.2*	*NO_2*	*N*
DT13	Clapham Road, close to Grantham Road	530363	*176269*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT14	378 Clapham Road (by Savoy Mews)	*530105*	*175956*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*

DT15	Clapham Road, outside Roy Ridley House	*530009*	*175719*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT16	Clapham Common tube station, outside Joe Public Café	*529413*	*175284*	*Roadside*	*Y*	*1*	*2*	*2.2*	*NO_2*	*N*
DT17	8 Stockwell Park Walk	*530916*	*175784*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT18	Stockwell Road/Bellefields Road	*531020*	*175699*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT19	Brixton Road bus stop Q (outside KFC)	*531027*	*175320*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT20	Effra Road/Kellett Road	*531038*	*175092*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT21	22 Brixton Water Lane	*531231*	*174607*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT22	St. Matthew's Estate, outside 6 Hicken Road	*530928*	*174849*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT23	Brixton Hill/Horsford Road (Corpus Christi RC School)	*530781*	*174682*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT24	Brixton Hill/New Park Road	*530150*	*173680*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT25	Christchurch House, Christchurch Road (South Circular)	*530461*	*173470*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT26	Streatham Hill/Wavertree Road	*530452*	*173105*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT27	Streatham Hill Station/opposite 10 Streatham High Road	*530255*	*172632*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT28	Streatham High Road/Leigham Avenue	*530217*	*172353*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT29	Streatham High Road/Becmead Avenue	*530130*	*172013*	*Roadside*	*Y*	*0.5*	*0.5*	*2. 2.*	*NO_2*	*N*
DT30	Public space outside 316 Streatham High Road (opp Stanthorpe Road)	*530015*	*171489*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT31	243A Streatham Hill (bus stop opposite Streatham Station)	*530101*	*171148*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*

DT32	Clapham High Street (Clapham Library)	*529730*	*175446*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT33	Clapham, Old Town	*529217*	*175648*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT34	South Circular - past bus stop	*529130*	*174288*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT35	South Circular – Oaklands Estate, outside Hawkesworth House	*529263*	*174190*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT36	South Circular – Poynders Court	*529420*	*173996*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT37	South Circular – Christchurch Road/Roupell Road	*530821*	*173309*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT38	South Circular – Fenstanton Primary	*531160*	*173103*	*Roadside*	*Y*	*1*	*1*	*2.2*	*NO_2*	*N*
DT39	South Circular – Tulse Hill/Norwood Road	*531731*	*173026*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT40	South Circular – Lords Close	*532341*	*172918*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT41	Norwood Road/York Hill	*531839*	*172552*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT42	380 Norwood Road (O'Girasol)	*531923*	*172225*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT43	West Norwood Bus Station	*531936*	*171795*	*Roadside*	*Y*	*2*	*2*	*2.2*	*NO_2*	*N*
DT44	223-225 Gipsy Road	*533016*	*171534*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT45	Gipsy Hill Station	*533328*	*171264*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT46	Herne Hill 1	*531989*	*174329*	*Roadside*	*Y*	*3*	*3*	*2.2*	*NO_2*	*N*
DT47	Herne Hill 2	*531860*	*174353*	*Roadside*	*Y*	*0.3*	*0.1*	*2.2*	*NO_2*	*N*
DT48	Loughborough Junction 1	*531972*	*175331*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT49	Loughborough Junction 2	*531856*	*175680*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
DT50	Acre Lane	*530657*	*175133*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
DT51	Crown Lane School next to bus stop	*531557*	*171047*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX1	Opposite SIS building	*530371*	*178067*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX2	Goding street, New Spring Gardens Walk	*530483*	*178200*	*Roadside*	*Y*	*0.5*	*2*	*2.2*	*NO_2*	*N*
VX3	Glasshouse walk and Vauxhall walk	*530571*	*178300*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*

VX4	In front of Tintagel House	530408	178326	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX5	Next to Embarkment bus stop	530440	178522	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX6	Vauxhall walk – Jonathan Street	530619	178466	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX7	Opposite Vauxhall Primary School	530802	178356	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX8	Opposite the Jolly Gardeners	530753	178616	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX9	Opposite the Fire Brigades Headquarter	530493	178745	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX10	Opposite The Workshop	*530565*	*178760*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
VX11	Old paradise street – opposite St Gabriel's House	*530729*	*178897*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
VX12	Old paradise street opposite 1-28 superton walk	*530858*	*178878*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
VX13	Opposite Lambeth Palace (Stop SD)	530607	178961	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR1	In front of Pret A Manger	531267	179825	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR2	Opposite the Wellington	531189	179969	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR3	Tenison Way bus Stop	531006	180079	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR4	Next to bridge by Azzurro Italian bar Sutton Walk	530951	180064	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SR5	At corner, opposite Gail's	*530835*	*179873*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR6	London Eye bus stop	*530768*	*179896*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SR7	Silver lamppost on grass, behind sign "Welcome to Jubille Garden"	*530655*	*180011*	*Urban Centre*	*Y*	*0.5*	*115*	*4*	*NO_2*	*N*
SR8	By bridge on Belvedere Road	*530823*	*180123*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR9	Entrance of Southbank Centre	*530845*	*180251*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SR10	By The Green Room	530965	180267	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*

SR11	Opposite The Understudy	*531020*	*180433*	*Urban Centre*	*Y*	*0.3*	*70*	*2.2*	*NO_2*	*N*
SR12	Upper Ground and Cornwall Road	*531118*	*180337*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR13	Upper Ground and Duchy Street	531287	180420	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR14	On fence by The Wharf	*531222*	*180500*	*Urban Centre*	*Y*	*0.3*	*90*	*2.2*	*NO_2*	*N*
SR15	Coin street and Stamford Street	*531259*	*180282*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR16	Cornwall Road by “Meantime in London B&B”	*531205*	*180162*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR17	Opposite Property Partners	*531283*	*179951*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR18	Opposite Culture Grub	*531418*	*179913*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR19	At corner, opposite KCL Maxwell Building	*531056*	*180134*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR20	On road sign on top of the stairs on bridge	*530935*	*180259*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SR21	On bridge, on road sign right before the stairs	*530902*	*180319*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	
LTN1	At the junction with Acre Lane and Concanon Road	*530622*	*175112*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN2	At the junction with Bedford Road and Clapham Park Road	*530068*	*175106*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN3	At the opposite end of Bedford Road outside 7oZ Coffee	*530043*	*175668*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN4	At the junction with Edithna Street and Landor Road	*530465*	*175865*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN5	Where Ferndale Road bends to the side by Pulross Road	*530917*	*175578*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN7	Hillside Road – Palace Road	*531152*	*172881*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN8	Downtown Avenue – Faygate Road	*530763*	*172840*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*

LTN9	Lydhurst Road – Faygate Road	*530728*	*172576*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN10	Leighame Vale – Hitherfield Road	*531110*	*172389*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
LTN11	Leigham Court Road – Culverhouse Gardens	*530650*	*172226*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
SCOOT	Brixton Road – Opposite St Johns Cresent	*531137*	*175822*	*Roadside*	*Y*	*0.3*	*0.5*	*2.2*	*NO_2*	*N*
AS1	Archbishop Sumner Church of England Primary School – Kennington Road j/w Reedworth Road	*531242*	*178675*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
AS2	Archbishop Sumner Church of England Primary School – Reedworth Road near play area	*531345*	*178627*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
JP1	Jessop Primary School 1- Milkwood Road j/w Heron Rd	*532008*	*175397*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
JP2	Jessop Primary School 2 – opposite 57 Heron Road	*532086*	*175297*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
JP3	Jessop Primary School 3 – by main entrance of the school	*532030*	*175130*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
LI	Loughborough Primary School – inside playground by metal gates	*531672*	*176207*	*Urban Centre*	*Y*	*0.5*	*5*	*2.2*	*NO_2*	*N*
LO	Loughborough Primary School – on Loughborough Road near the playground	*531651*	*176150*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
RS1	Rosendale Primary School – Turney Road opposite school gate on a sign	*532317*	*173611*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
STA1	St Anne's Catholic Primary School – sign	*530703*	*177997*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*

	post near entrance to school on Durham Street									
STA2	St Anne's Catholic Primary School – on school fence on Harleyford Road by the playground	*530621*	*177957*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SS1	St Stephen's Church of England Primary School – near to the entrance to school on Dorset Road	*530501*	*177330*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SP1	Sudbourne Primary School – Hayter Road by school entrance	*530628*	*177333*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SP2	Sudbourne Primary School – Sudbourne Road near the playground	*530738*	*174966*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
SH1	Sunny Hill Primary School – school metal fence	*530775*	*171653*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
VP1	Vauxhall Primary School – on Tyers Terrace	*530810*	*178254*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
VP2	Vauxhall Primary School – Vauxhall Street by school entrance	*530800*	*178341*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
WP1	Wyvil Primary School – on signpost	*530281*	*177513*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*
WP2	Wyvil Primary School – school metal fence	*530246*	*177510*	*Roadside*	*Y*	*0.5*	*0.5*	*2.2*	*NO_2*	*N*

1.2 Comparison of Monitoring Results with AQOs

The results presented are after adjustments for “annualization” and for distance to a location of relevant public exposure, the details of which are described in Appendix A. In 2020, a new diffusion tube data processing tool was developed by DEFRA to assist local authorities in processing their NO2 diffusion tube monitoring data. This is the Diffusion Tube Data Processing Tool v1.0. The tool assists local authorities with annualization, bias adjustment, fall off with distance adjustment and calculation of the annual mean concentration. We have utilised the Data Processing Tool to annualise, bias adjust, and distance adjust the data captured by our diffusion tubes in 2020, and to calculate the annual means. For consistency and to ensure the data was comparable, we have recalculated the 2018 and 2019 concentrations using the Diffusion Tube Data Processing Tool v1. Consequently, **the diffusion tube annual mean values for 2018 and 2019 which is presented in this Annual Status Report supersede the annual means presented in previous Annual Status Reports**.

Table E. Annual Mean NO_2 Ratified and Bias-adjusted Monitoring Results

Site ID	Site type	Valid data capture for monitoring period %[a]	Valid data capture 2020 %[b]	2013[c]	2014[c]	2015[c]	2016[c]	2017[c]	2018[c]	2019[c]	2020[c]
LB4 (Brixton Road)	Automatic	N/A	96.20%	**112**	**149**	**129**	**92 (118)**	**75 (95)**	**74.2 (95)**	**60.1 (75)**	**56.2(60.5)**
LB5 (Vauxhall Bondway Interchange)	Automatic	N/A	97.50%	**62 (64.9)**	**71**	**75**	**65 (69)**	**61 (65)**	**51.1 (54)**	**45.6 (48)**	33.7 (36.4)

LB6 (Streatham Green)	Automatic	N/A	100%	**43 (44.9)**	37 (38.1)	29	33 (34)	28.8(29)	33.8 (34)	31.8 (32)	25.8(26)
DT1, DT2, DT3	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	**76.0**	**75.4**	**56.9**
DT4	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	39.1	35.5	25.9
DT5	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**57.9**	**49.6**	34.1
DT6	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**43.2**	38.0	25.1
DT7	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	**48.8**	**41.6**	29.2
DT8	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**49.9**	**46.7**	31.4
DT9	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	**57.1**	**50.7**	35.1
DT10	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	36.8	33.4	24.5
DT11	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**48.6**	**45.7**	31.2
DT12	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**50.6**	**47.8**	36.0
DT13	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**50.9**	**47.5**	36.4
DT14	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**50.4**	**49.3**	37.4
DT15	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**49.8**	**51.1**	39.5
DT16	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	**43.0**	37.3	31.3
DT17	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**44.6**	**44.8**	35.2
DT18	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**54.1**	**48.2**	31.1
DT19	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	**70.6**	**63.1**	38.8
DT20	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	38.7	35.7	30.6
DT21	Diffusion	N/A	38.46%	N/A	N/A	N/A	N/A	N/A	31.6	34.9	22.3
DT22	Diffusion	N/A	38.46%	N/A	N/A	N/A	N/A	N/A	28.4	28.5	21.3
DT23	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	37.8	29.4	24.7
DT24	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	36.3	33.4	24.6
DT25	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**57.0**	**50.1**	35.8
DT26	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	35.0	34.0	27.6
DT27	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	**63.3**	**62.9**	**53.7**
DT28	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**50.3**	**52.7**	**42.6**

DT29	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**62.9**	**62.7**	**49.1**
DT30	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**54.2**	**52.7**	35.9
DT31	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**69.7**	**62.7**	**49.9**
DT32	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	35.8	36.8	23.8
DT33	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	36.0	32.2	23.8
DT34	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**55.6**	**51.2**	36.4
DT35	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**46.3**	**40.7**	29.6
DT36	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**52.6**	**48.8**	**41.2**
DT37	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**45.9**	39.4	31.8
DT38	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**53.7**	**47.9**	35.2
DT39	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	**50.3**	**44.9**	34.9
DT40	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**51.5**	**46.9**	36.3
DT41	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**49.4**	**41.9**	32.0
DT42	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	**52.6**	**49.9**	35.6
DT43	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	39.7	38.1	29.9
DT44	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	35.3	35.4	25.0
DT45	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	34.2	28.0	27.2
DT46	Diffusion	N/A	30.77%	N/A	N/A	N/A	N/A	N/A	**42.8**	36.0	29.9
DT47	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	**46.1**	**47.2**	30.4
DT48	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	**46.8**	**48.7**	35.3
DT49	Diffusion	N/A	50.00%	N/A	N/A	N/A	N/A	N/A	39.6	29.0	26.4
DT50	Diffusion	N/A	48.08%	N/A	N/A	N/A	N/A	N/A	**45.7**	**42.6**	32.2
DT51	Diffusion	N/A	57.69%	N/A	N/A	N/A	N/A	N/A	N/A	38.9	28.2
VX1	Diffusion	27.27%	25.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29.8
VX2	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.4
VX3	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.3
VX4	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.3
VX5	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.3
VX6	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27.1

VX7	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.9
VX8	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.1
VX9	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.9
VX10	Diffusion	45.45%	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.5
VX11	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.8
VX12	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.2
VX13	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.3
SR1	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.5
SR2	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.6
SR3	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	38.4
SR4	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.5
SR5	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.7
SR6	Diffusion	36.36%	30.77%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.4
SR7	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.9
SR8	Diffusion	36.36%	30.77%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.9
SR9	Diffusion	18.18%	17.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
SR10	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.7
SR11	Diffusion	45.45%	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.5
SR12	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.3
SR13	Diffusion	45.45%	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.0
SR14	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.4
SR15	Diffusion	54.55%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.9
SR16	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.6
SR17	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.8
SR18	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.4
SR19	Diffusion	54.55%	50.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.6
SR20	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**44.1**
SR21	Diffusion	36.36%	30.77%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29.3
LTN1	Diffusion	27.27%	25.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	26.6

LTN2	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.7
LTN3	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.4
LTN4	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.6
LTN5	Diffusion	27.27%	25.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.4
LTN7	Diffusion	36.36%	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.8
LTN8	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.7
LTN9	Diffusion	45.45%	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.7
LTN10	Diffusion	36.36%	34.62%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.0
LTN11	Diffusion	36.36%	34.62%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**42.4**
SCOOT	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.0
AS1	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.3
AS2	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.9
JP1	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17.4
JP2	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.8
JP3	Diffusion	N/A	15.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA
LI	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.7
LO	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.4
RS1	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.5
STA1	Diffusion	N/A	25.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32.1
STA2	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	35.2
SS1	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.0
SP1	Diffusion	N/A	25.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.3
SP2	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19.0
SH1	Diffusion	N/A	26.92%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.5
VP1	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.1
VP2	Diffusion	N/A	42.31%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.7
WP1	Diffusion	N/A	32.69%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.2
WP2	Diffusion	N/A	40.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.5

Notes:

The annual mean concentrations are presented as µg m^{-3}.
(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) Exceedances of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**. NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold and underlined**. Means for diffusion tubes have been corrected for bias. All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%. Continuous monitoring sites have been adjusted to a point of relative public exposure. The unadjusted data is shown in brackets. Diffusion tubes have also been adjusted to the point of relevant public exposure – please see Table O for more details.

Automatic monitoring

Since 2014, NO2 levels have decreased by 62% at Brixton Road LB4, by 52% at Vauxhall LB5, and by 30% at Streatham Green LB6. The trend has continued in 2020, with NO2 levels decreasing at all three sites compared to 2019 levels. We recognise that restrictions on activities following COVID-19 might have contributed to a reduction in concentrations measured in 2020, and that easing of lockdown might contribute to an increase in future concentrations. We will continue to monitor changes in pollutants regularly. Following current trends, we expect to meet the Mayor of London's commitment to meet legal limits for NO2 by 2025 at all three sites.

LB4 kerbside site at Brixton Road has exceeded the Air Quality Objective in 2020. It has exceeded the objective every year, and continues to register high concentrations of NO2. NO2 levels are of concern at the site, as many people live and work in the area, and Brixton Road is used every day by pedestrians and cyclists.

LB5 industrial site at Vauxhall did not exceed the Air Quality Objective. This is the first year the site has not exceeded the objective. The Vauxhall bus station will be redeveloped in the coming years, and the air quality monitoring station might be relocated. As part of the relocation, we expect to reduce the size of the enclosure of the air quality monitoring station.

LB6 background site at Streatham Green did not exceed the Air Quality Objective.

Passive monitoring

For more details on diffusion tubes monitoring, please see Appendix B Full Monthly Diffusion Tube Results for 2020.

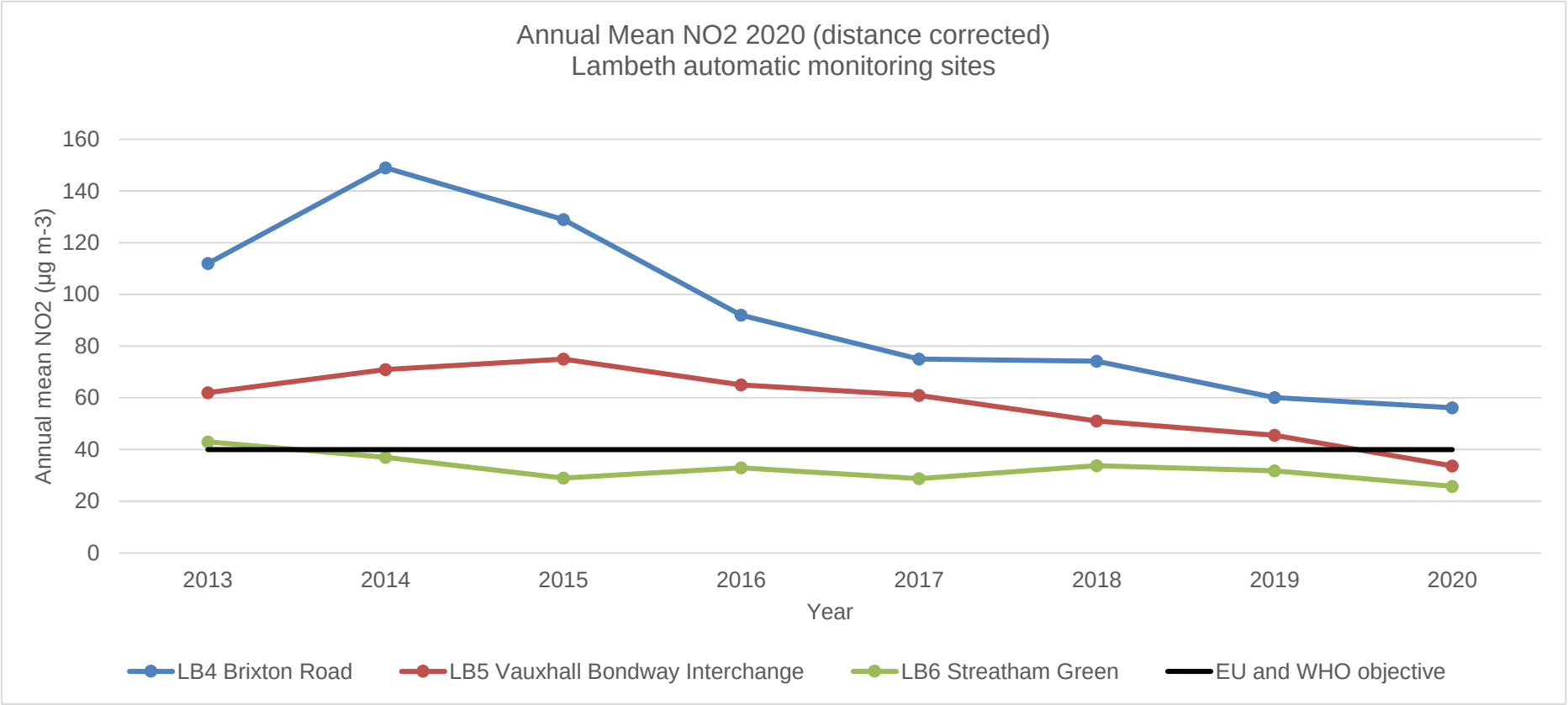

Annual Mean NO2 2020 (distance corrected)
Lambeth automatic monitoring sites
Annual mean NO2 (µg m-3)
160
140
120
100
80
60
40
20
0
2013
2014
2015
2016
2017
2018
2019
2020
Year
LB4 Brixton Road
LB5 Vauxhall Bondway Interchange
LB6 Streatham Green
EU and WHO objective

Table F. NO_2 Automatic Monitoring Results: Comparison with 1-hour Mean Objective, Number of 1-Hour Means > 200 µg m^{-3}

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2020 %[(b)]	2013 [(c)]	2014 [(c)]	2015 [(c)]	2016 [(c)]	2017 [(c)]	2018 [(c)]	2019 [(c)]	2020 [(c)]
LB4 (Brixton Road)	N/A	96.2%	**250**	**1732**	**883**	**539**	**75**	**83 (247.87)**	11 **(196)**	1
LB5 (Vauxhall Bondway Interchange)	N/A	97.5%	0 **(161)**	3	4	1	0	0	0	0
LB6 (Streatham Green)	N/A	100%	2 **(143)**	0 **(135)**	0	0 (0)	0	0	0	0

Notes
Results are presented as the number of 1-hour periods where concentrations greater than 200 µg m^{-3} have been recorded.
(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) Exceedance of the NO_2 short term AQO of 200 µg m^{-3} over the permitted 18 hours per year are shown in **bold**. If the period of valid data is less than 85%, the 99.8th percentile of 1-hour means is provided in brackets.

Since 2014, all sites have registered a decrease in the number of exceedances of the 1-hour mean Air Quality Objective.

The LB4 site on Brixton Road registered only one exceedance of the 1-hour mean objective this year.

Both LB5 Vauxhall Bondway Interchange and LB6 Streatham Green continued to meet the objective.

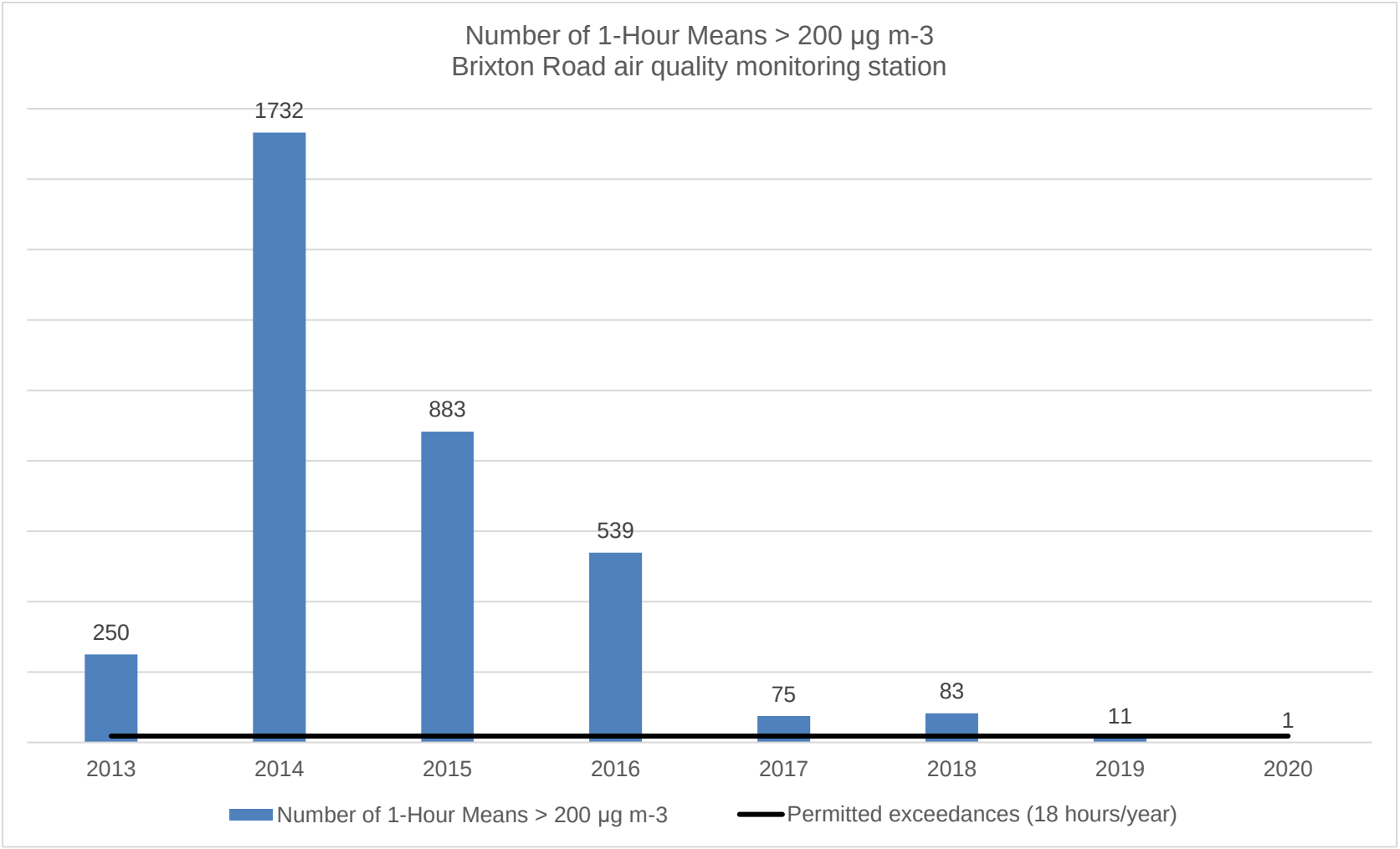

Number of 1-Hour Means > 200 µg m-3
Brixton Road air quality monitoring station
1732
883
539
250
75
83
11
1
2013
2014
2015
2016
2017
2018
2019
2020
Number of 1-Hour Means > 200 µg m-3
Permitted exceedances (18 hours/year)

Table G. Annual Mean PM_{10} Automatic Monitoring Results (µg m^{-3})

Site ID	Valid data capture for monitoring period %[(a)]	Valid data capture 2020 %[(b)]	2013 [(c)]	2014 [(c)]	2015 [(c)]	2016 [(c)]	2017 [(c)]	2018 [(c)]	2019 [(c)]	2020 [(c)]
LB4 (Brixton Road)	NA	99%	32 (32.3)	30 (29.8)	28 (26.9)	40	35	30 (29)	25	24
LB5 (Vauxhall Bondway Interchange)	NA	98%	38 (39.2)	40	**43**	39 (38)	37	34	38	**46**
LB6 (Streatham Green)	NA	98%	17 (17.6)	24 (22.8)	18.2 (19)	20 (22)	28 (26)	20	19	18

Notes

The annual mean concentrations are presented as µg m^{-3}.

(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)Exceedances of the PM_{10} annual mean AQO of 40 µg m^{-3} are shown in **bold**. All means have been "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% and more than 33%.

Brixton Road LB4 and Streatham Green LB6 continued to meet the objective in 2020.

Vauxhall LB5 has breached the annual mean objective of 40 µg m-3. This is the highest PM10 concentration ever recorded at the site. It is believed that the spikes recorded at the station since 2019 are due to contamination from a tube vent which belongs to Transport for London. The vent is situated immediately next to the air quality station's sensors; it was previously sealed, and has been left open since 2019. Lambeth has tried liaising multiple times with Transport for London asking that the vent was closed or that pollution coming from the vent was mitigated. **The pollution from the vent is contaminating the readings, and we therefore believe those not to be representative of PM10 levels in the Vauxhall area**. We continue to liaise with TfL to agree on a solution.

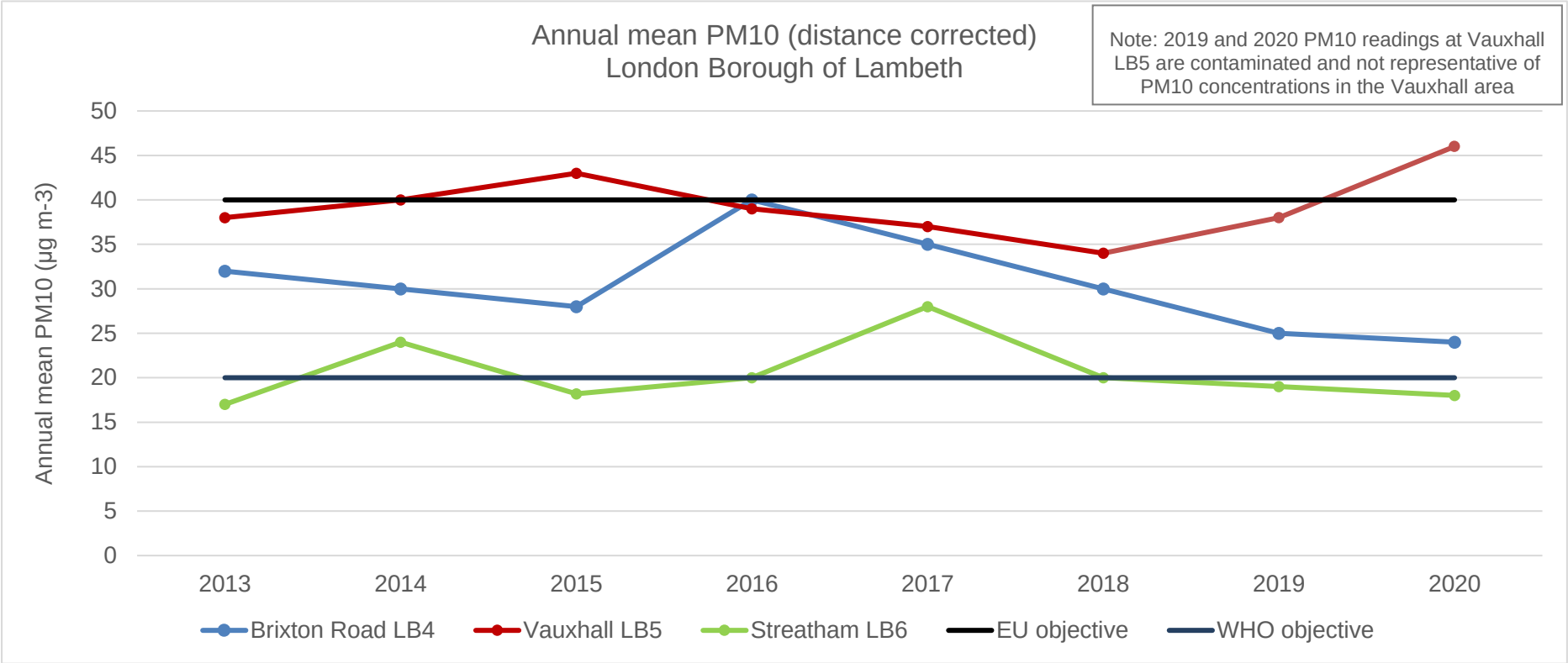

Annual mean PM10 (distance corrected)
London Borough of Lambeth
Note: 2019 and 2020 PM10 readings at Vauxhall LB5 are contaminated and not representative of PM10 concentrations in the Vauxhall area
Annual mean PM10 (µg m-3)
50
45
40
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
Brixton Road LB4
Vauxhall LB5
Streatham LB6
EU objective
WHO objective

Table H. PM_{10} Automatic Monitoring Results: Comparison with 24-Hour Mean Objective, Number of PM_{10} 24-Hour Means > 50 µg m^{-3}

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2019 % [b]	Number of Daily Means > 50 µg m^{-3}							
			2013 [c]	2014 [c]	2015 [c]	2016 [c]	2017 [c]	2018 [c]	2019 [c]	2020 [c]
LB4 (Brixton Road)	NA	99%	13 **(46.6)**	12 **(43.7)**	11 **(39.5)**	**57**	27	13 **(46)**	10 **(38.1**)	11
LB5 (Vauxhall Bondway Interchange)	NA	98%	22 (**53.8**)	**62**	**73 (60.6)**	**43 (62.7)**	**64**	**45**	**74**	**142**
LB6 (Streatham Green)	NA	98%	4 (27.4)	10 **(40.44)**	1 (34.5)	2 (33.8)	11 (10)	3	5	4

Notes
(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) Exceedances of the PM_{10} 24-hour mean objective (50 µg m^{-3} over the permitted 35 days per year) are shown in **bold.** Where the period of valid data is less than 85% of a full year, the 90.4th percentile is provided in brackets.

At Brixton Road LB4 the objective was met. The number of exceedances has decreased since 2017. Please see the graph below.

At Vauxhall LB5 the objective was exceeded. In 2020, 142 days recorded a daily mean about 50 µg m-3, 4 times the permitted limit of 35 days/year. This is the highest breach ever recorded at one of our sites. It is believed the exceedances to be due to contamination from a tube vent which belongs to Transport for London, which is situated immediately next to the air quality station's sensors. This vent was previously sealed and has been left open since 2019. **The pollution from the vent is contaminating the readings, and we therefore believe those not to be representative of PM10 concentrations in the Vauxhall area.**

At Streatham Green LB6 the objective was met. There doesn't seem to be a significant trend in results over the past 8 years, although the number of exceedances has continued to remain low since 2017.

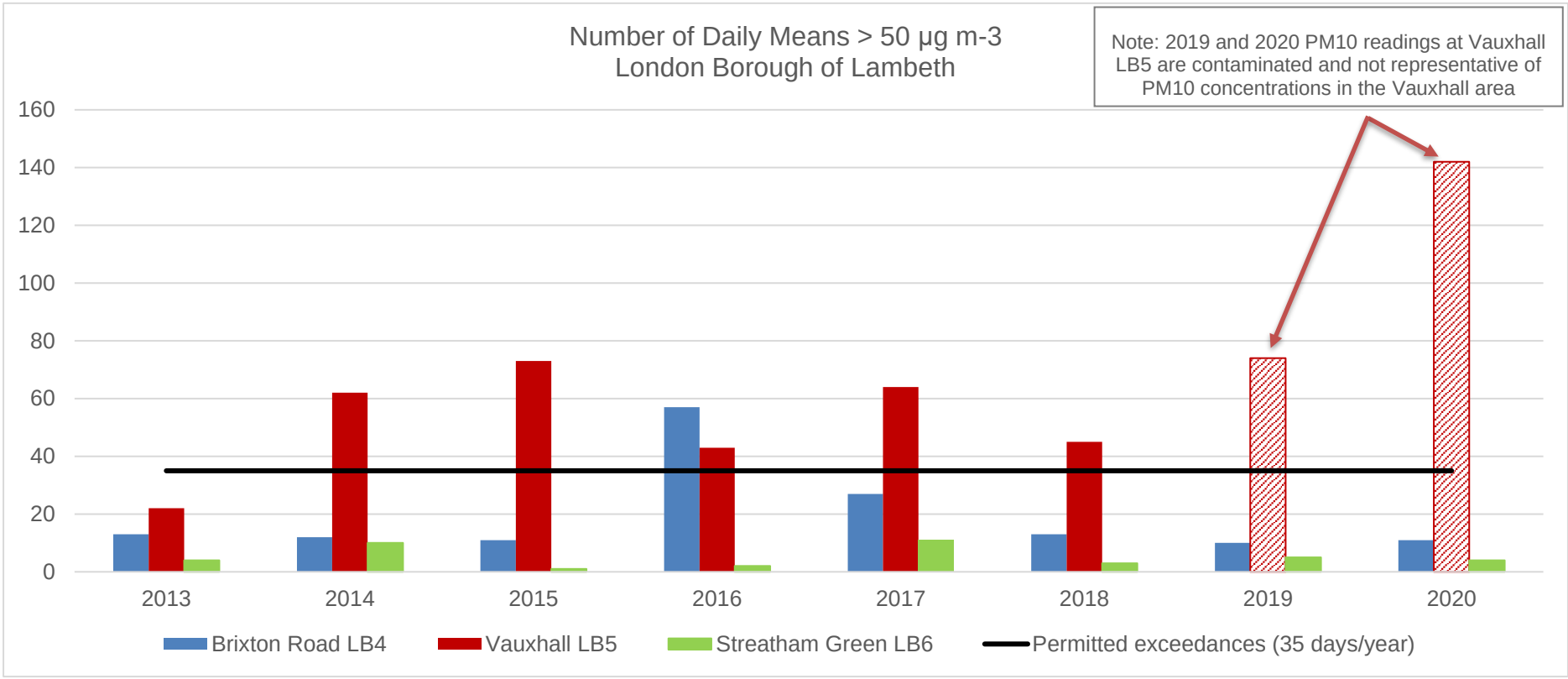

Number of Daily Means > 50 µg m-3
London Borough of Lambeth
Note: 2019 and 2020 PM10 readings at Vauxhall LB5 are contaminated and not representative of PM10 concentrations in the Vauxhall area
160
140
120
100
80
60
40
20
0
2013
2014
2015
2016
2017
2018
2019
2020
Brixton Road LB4
Vauxhall LB5
Streatham Green LB6
Permitted exceedances (35 days/year)

Table I. 2020 SO_2 Automatic Monitoring Results: Comparison with Objectives

Site ID	Valid data capture for monitoring period % [a]	Valid data capture 2020 % [b]	Number of: [c]		
			15-minute means > 266 µg m^{-3}	1-hour mean > 350 µg m^{-3}	24-hour mean > 125 µg m^{-3}
LB5 (Vauxhall Cross Interchange)	NA	95%	0	0	0

Notes
Results are presented as the number of instances where monitored concentrations are greater than the objective concentration.
(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) Exceedances of the SO_2 objectives are shown in **bold** (15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed a year).
If the period of valid data is less than 85%, the relevant percentiles are provided in brackets.

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

2. Impact of COVID-19 upon LAQM

The COVID-19 pandemic affected the ability of Lambeth Council's Climate Change and Climate Change and Sustainability Team to deliver a number of air quality measures:

- **Diffusion tubes**: To reduce the risk of staff exposure to COVID-19, Lambeth's Climate Change and Climate Change and Sustainability Team did not change the diffusion tubes for several months in 2020 (March, April, May, July, August 2020), resulting in <75% data capture for all tubes.
- **In-person events**: Since March 2020, the Climate Change and Climate Change and Sustainability Team has not been able to deliver in-person events. This includes anti-idling events with Idling Action London in schools and with the community, as well as in-person events to celebrate Clean Air Day. We were also unable to run and attend in-person workshops with schools, community groups and residents. We expect to resume the delivery of in-person events as soon as permitted.

Since February 2020, Lambeth's Public Health team has been mobilised to respond to the COVID-19 pandemic, so their contribution to the delivery of Lambeth Air Quality Action Plan in 2020-21 was limited compared to previous years.

Despite the pandemic, the Climate Change and Climate Change and Sustainability Team was able to continue to deliver most of its work online, and even begin new, innovative projects. A summary of those is provided below, and a more detailed update can be found in Table J.

- **Air quality monitoring stations**: The servicing was unaffected. All contractors continued to provide regular maintenance and LSO servicing. The % of data captured by each station was significantly high at all three sites in 2020.

- **Online events and meetings**: The Climate Change and Climate Change and Sustainability Team celebrated Lambeth Clean Air Week – a week of events around Clean Air Day in October 2020 – with a series of online events, attended by staff, businesses, private residents, partners, schools and community groups. The quarterly meetings with Lambeth AQAP Steering Group took place online. The team was able to continue to liaise with individual residents, contractors, partners, Business Improvement Districts, schools, and attended and presented at multiple conferences throughout 2020, including those organised by Idling Action London, Cross River Partnership, the Central London Air Quality Cluster Group.
- **New projects**: a number of new projects were initiated in 2020, including:
  - Successfully applying to the Mayor's Resilience Fund to deliver a project focused on PM2.5 modelling
  - Successfully applying to Defra Air Quality Grant Scheme 2020/21 to deliver a woodburning monitoring and awareness raising project
  - Working with quality consultants "CERC", to assess the air quality impact of Lambeth's Low Traffic Neighbourhoods using modelling software ADMS-Urban
  - Delivering a project with Transport for London and Bosch to monitor the air quality impact of traffic light timing on Brixton Road

Impact Matrix

In line with the latest "Covid-19 – supplementary guidance for local authorities for local air quality management reporting in 2021", we have completed an impact matrix, to contextualise impacts on monitoring data from diffusion tubes and continuous analysers. The matrix summarises the most significant impacts of Covid-19 upon LAQM duties, and relative impact rating. The matrix is meant to guide the reader through the interpretation of our monitoring data and ensure the reader treats the data with caution, particularly in instances of low data capture. The full Matrix can be found in Appendix C COVID-19 Impact Matrix.

Table J. Covid-19 Impact Matrix

Parameter	Covid-19 impact	Comments
Automatic Monitoring – Data Capture (%)	No Impact	No impact on our automatic monitoring, as more than 75% data capture was achieved at all sites.
Automatic Monitoring – QA/QC Regime	No impact	Adherence to requirements as defined in LAQM.TG(16) . Routine calibration, regular maintenance and audits took place to normal regime.
Passive Monitoring – Data Capture (%)	Medium impact	25 to 50% data capture. Medium to large impact on our passive monitoring, as all diffusion tubes registered a 25-50% data capture. As such, data should be interpreted with caution.
Passive Monitoring – Bias Adjustment Factor	No impact	Bias adjustment undertaken as normal.
Passive Monitoring – Adherence to Changeover Dates	No impact	Defra diffusion tube exposure calendar was adhered to. However, diffusion tubes could not be changed every month.
Passive Monitoring – Storage of Tubes	No impact	Tubes were stored in accordance with laboratory guidance and analysed promptly.
AQAP – Measure Implementation	Small impact	Short delay (<6 months) in implementation of some measures, but most measures have been progressed to a degree.

3. Action to Improve Air Quality

3.1 Air Quality Action Plan Progress

Table J provides a brief summary of London Borough of Lambeth progress against its Air Quality Action Plan 2017-2022, showing progress made this year.

Table K. Delivery of Air Quality Action Plan Measures

Action n.	LLAQM Action Matrix Theme	Action	Deadline	Progress
1.1	**Emissions from Developments and Buildings (actions 1-9)**	Include a policy on air quality as part of the Local Plan review	Early 2021	• Section 9 of the Revised Lambeth Local Plan sets out that Lambeth will apply London Plan policy SI1 Improving air quality to all development proposals in the borough, along with associated Mayoral guidance on Air Quality Neutral and Air Quality Positive. The Revised Lambeth Local Plan is expected to be adopted in summer of 2021. • The London Plan 2021 forms part of Lambeth's development plan (together with the Local Plan and any made neighbourhood plan) and therefore London Plan policy SI1 on air quality now applies to development proposals in the borough.
1.2		Work with neighbourhood planning forums on area-specific air quality policies in emerging neighbourhood plans	Throughout Plan	• We are committed to support and work together with any local community that wants to write a Neighbourhood Plan, with policies that improve air quality for local residents. • The council has one neighbourhood plan – South Bank and Waterloo Neighbourhood Plan, which includes policies on air quality stating that development proposals must show how they contribute to the improvement of air quality in South Bank and Waterloo, and encourages development along identified pedestrian routes.
1.3		Explore the potential for allocation of funds from s106 planning obligations aimed at offsetting air quality impacts from a development. Explore potential to add an Air Quality Fund should	Throughout Plan	• Further to last year's ASR, Lambeth has continued to use CIL to fund our electric charging points for ice cream vans (see Action 40.2 for an update). The Council has allocated £34,292 from Strategic CIL to fund the Electric Vehicle Charging Points Pilot Programme. £24,292 was drawn down in 2018/19. • CIL can be used to fund projects aimed at improving air quality and reducing current levels of air pollution in Lambeth. Air quality infrastructure projects are already included in Lambeth's Infrastructure Delivery Plan setting out the infrastructure required to meet the needs of the borough until 2034/35. It is not necessary to set aside an Air Quality Fund from within Lambeth CIL.

		Lambeth CIL Charging Schedule be reviewed		• S106 planning obligations may also be used to fund air quality and reducing current levels of air pollution in Lambeth as long as this meets the requirements of Regulation 122(2) of the CIL Regulations 2010 as amended. Regulation 122(2) states that planning obligations must be: a) necessary to make development acceptable in planning terms; b) directly related to the development; and c) fairly and reasonably related in scale and kind to the development. • S106 planning obligations can be pooled from different developments in order to provide for an Air Quality Fund. S106 planning obligations may be combined with CIL to fund air quality infrastructure projects.
1.4		Identify and manage the impact of growth and regeneration on waste management and industrial processes regulated under the Environmental Permitting Regulations	Throughout Plan	• Our Air Quality Guidance Note requires Air Quality Assessments submitted with planning applications to consider the impact of industrial processes regulated under the Environmental Permitting Regulations (EPR). Our map of Part B industrial processes regulated under LAPPC, alongside the LAPPC public register, should inform developers. • Lambeth Climate Change and Climate Change and Sustainability Team was consulted on all air quality aspects of major planning applications, applications affecting sensitive receptors, such as schools, and applications for developments within Air Quality Focus Areas.
2.1		Educate and raise awareness amongst developers of Non-Road Mobile Machinery (NRMM) and enforce NRMM policies	Complete	As explained in our 2019 ASR, this action is now complete
2.2		Develop internal processes to continue to educate and raise awareness amongst developers of NRMM; and enforce NRMM policies after funding expires in March 2019	Throughout Plan	• We are continuing to work with Merton and other boroughs as part of the pan-London NRMM project, which is now funded until March 2022 by the Mayor's Air Quality Fund to continue to educate and raise awareness amongst developers. • A Lambeth Sustainability Officer has undergone training on auditing NRMM on construction sites from the Regulatory Services Partnership. • Participation in the NRMM project is secured until March 2022 to continue to educate and raise awareness amongst developers of NRMM and enforce NRMM policies.
2.3		Continue to research pollution mitigation measures as part of London Low Emission Construction Partnership (LLECP); promote LLECP scheme, findings and recommendations among	Complete	As explained in our 2019 ASR, this action is now complete

		developers operating in the borough		
2.4		Continue work and legacy of LLECP after funding expires in March 2019	March 2022	• As explained in previous ASRs, funding from the MAQF is secured until March 2022 to continue to educate and raise awareness amongst developers of NRMM, and enforce NRMM policies. • A Lambeth Sustainability Officer has undergone training on auditing NRMM on construction sites from the Regulatory Services Partnership.
2.5		Carry out an investigation into whether a Construction Impact Monitoring Officer(s) should be recruited to monitor and enforce against dust from construction		As explained in our 2019 ASR, this action is now complete
3		CHP and biomass air quality policies	Throughout Plan	• The new Local Plan will discourage the use of CHP in line with the New London Plan. These policies will be followed when planning applications are reviewed, along with our policies on biomass plant and ultra-low NOx boilers in the Lambeth Air Quality Guidance Note. • Lambeth Climate Change and Climate Change and Sustainability Team is consulted on all air quality aspects of major planning applications, applications affecting sensitive receptors such as schools and applications for sites in Air Quality Focus Areas. This includes review of emissions from proposed energy centres. Relevant emissions standards in line with the Sustainable Design and Construction SPG are secured by planning condition
4		Implementing London Plan Air Quality Neutral Policy	Throughout Plan	• The Draft Revised Lambeth Local Plan Proposed Submission Version 2020 states that Lambeth will implement Mayoral guidance on Air Quality Neutral and Air Quality Positive standards.
5		Ensuring adequate, appropriate, and well-located green space and infrastructure is included and protected in developments	Throughout Plan	• Lambeth Sustainability is consulted on all air quality aspects of major planning applications, applications affecting sensitive receptors such as schools and applications for sites in Air Quality Focus Areas. Green infrastructure and additional green spaces are recommended in general to improve air quality, amenity and biodiversity. Green infrastructure and green screens may be recommended to protect future users from air pollution where the development may expose them to poor air quality, but this is only considered where risk can't be mitigated through design. • We are looking to invest in additional capacity for reviewing planning applications for air quality considerations.
6		Ensuring emissions from construction are minimised	Throughout Plan	• We are continuing to work with LB Merton on the pan-London NRMM project to increase compliance with NRMM engine emissions standards. A Lambeth Sustainability Officer has undergone training on auditing NRMM on construction sites.

				• Construction sites determined to be high risk for dust impacts, or medium risk and close to a sensitive receptor will be required to monitor PM10 on site and stop activities when exceedances of a trigger level occur. • Our Air Quality Guidance Note includes information regarding minimising emissions during construction. • Sustainability Officers also review Air Quality and Dust Management Plans, Construction Environmental Management Plans, Method Statements and Construction Logistics Plans submitted by developers for air quality impacts during construction. • Lambeth Planning Enforcements investigate reports of poor air quality suspected to be due to construction. • Our Construction Site Compliance Officer is still in post to work in the north of the borough to reduce pollution from construction and logistics. • We will be investing in additional capacity for reviewing planning applications for air quality considerations, and this will include the construction phase.
7		Ensuring that Smoke Control Zones are appropriately identified and fully promoted and enforced	March 2021	• In October 2020 we successfully applied to the DEFRA Air Quality Grant Scheme 2020/21, and have been awarded £31.5k. The aim of our project is to map PM2.5 concentrations generated by woodburning in residential areas of Lambeth in winter 2021, and utilise the findings to run a year-long, borough-wide awareness raising campaign. • Our online resources continue to remain available on our dedicated webpage of the air quality website. Woodburning regulations are changing and more power is given to local authorities to tackle this source of pollution. We update our online resources with new relevant information on a regular basis. • We recently joined a woodburning working group led by the GLA, with the aim of coordinating our actions to tackle woodburning with other London-boroughs and remain updated on relevant legislation. • Our residents can report a breach of a Smoke Control Order by completing an online form. In 2019, we received 54 complaints and in 2020 we received 92 complaints. We are investigating the causes of the increase, but we believe this is a direct result of increased awareness among Lambeth residents. • We respond to residents' concerns on a regular basis, direct them to our online resources, and advise them on the best course of action in the event of woodburning related nuisance.
8.1		Lambeth Housing to make full use of funding available under RE:NEW scheme and to replace at least 250 boilers each year	Throughout Plan	• During the period August 2019 until March 2021, we replaced 1,026 boilers. • We are working with other London boroughs as part of the West London Coalition for the Green Homes Grant Local Authority Delivery scheme, led by LB Ealing. The coalition has been awarded grant funding for retrofit of homes likely to be living in fuel poverty. Works will include gas boiler replacement where feasible, and where boilers are particularly old.

8.2		Promoting RE:NEW scheme to individual households, social and private landlords to increase uptake of the scheme in the borough	Throughout Plan	• Sustainability Officers held a series of workshops for residents to advise how to reduce energy and save money, including on: 4 November 2019, 25 February 2020 and 12 March 2020. For more information, please see here and here • Sustainability Officers redesigned and/or produced new guides for residents, to raise awareness of air pollution and minimise energy consumption at home. The guides are available here.
8.3		Explore opportunities for Lambeth to make full use of the RE:FIT information support scheme to retrofit all remaining public buildings including schools, libraries and leisure centres	Throughout Plan	• Retrofit works including boiler replacement were completed at Richard Atkins Primary and Jubilee Primary. • We secured £6.75m to retrofit schools in Lambeth through the Public Sector Decarbonisation Scheme. These works will commence in 2021 and be completed by early 2022, and will include installation of air source heat pumps to reduce reliance on gas boilers.
9		Review and enforce emissions management control techniques at facilities the Council regulates under the Environmental Regulations	Throughout Plan	• There are 60 Part B permits holders in Lambeth. No new permits were issued in 2020/21. Evidence was submitted to DEFRA on time. • We will be delivering an awareness raising campaign around Part B permits throughout 2021, to ensure organisations and businesses in Lambeth are aware of Part B requirements and apply for a permit if relevant. • Lambeth has no Part A installations
10	**Public Health and Awareness Raising (Actions 10-23)**	Director of Public Health is fully briefed on the scale of the problem, what is being done and what is needed	Throughout Plan	• The annual public health report was designed in 2020 to inform the citizen assembly on climate change. It focuses on critical climate change risks for Lambeth as an urban densely populated city centre and includes reference to air pollution. The report can be found here • There are fact sheets which provide more details for each section here
11		Public Health teams support engagement with local stakeholders (businesses, schools, community groups and healthcare providers) and are asked for their support	Throughout Plan	• In Summer 2020, Lambeth supported a campaign led by Global Action Plan to measure and raise awareness of air quality improvements registered during lockdown across Lambeth and Southwark, with a view of informing our residents of the health impact of air pollution. Sustainability Officers were interviewed by Global Action Plan and discussed options available to Lambeth residents to minimise their contribution and exposure to air pollution. The campaign's report can be found here.
12.1		JSNA includes air quality as a key theme and has up to date information on air quality impacts	Throughout Plan	• Public Health is keen to work with colleagues across the Council to include measurable key indicators in the air quality action plan, with a view to embedding evaluation and developing remedial actions to improve outcomes and output
12.2		Communications campaign highlighting health impacts of poor air quality	Throughout Plan	• Due to Covid-19, for most of 2020, Sustainability Officers were unable to deliver and attend in-person events to raise awareness of the health effects of air pollution. Instead, a number of online events (below) were delivered. • As part of Lambeth Clean Air Week (5th-9th October 2020), a week of events to celebrate National Clean Air Day, Sustainability Officers delivered a series of internal and external webinars discussing air pollution, with a particular focus on its

				health impact. The recordings of the webinar are available here and have been shared on our social media channels (twitter, facebook, linkedIn). An example of the publicity we did to promote the event can be found here and here. • We update our air quality webpage with new content on a regular basis. Our health resources for older residents have been re-designed in 2020 to be more appealing and are available here • Action 21.1 contains an update on our work to identify vulnerable receptors across Lambeth, and their exposure to various pollutants (NO2, PM10 and PM2.5), as part of our Mayor's Resilience Fund Project, and our LTNs modelling project. The results will contribute to borough-wide awareness raising initiatives.
13		Strengthening co-ordination with Public Health by ensuring that at least one consultant grade public health specialist within the borough has air quality responsibilities outlined in their job profile	Throughout Plan	• During 2020/21 Lambeth Public health team was under a lot of pressure to respond to COVID19 pandemic. However, they were able to mobilise Public health trainee to a) work on the APHR including the chapter on air quality b) update action cards for key stakeholders
14		Ensure that the lead officer for Transport has been fully briefed on the Public Health duties and the fact that all directors (not just Director of Public Health) are responsible for delivering them, as well as on air quality opportunities and risks related to transport in the borough	Throughout Plan	• Following an internal restructure, in April 2020 the Climate Change and Climate Change and Sustainability Team joined the Sustainable Growth and Climate Change Response Division. The Transport team is also part of the same Division, and the relocation has enabled the Climate Change and Climate Change and Sustainability Team to work more closely with the Transport team. For instance, multiple times the two teams have contributed to each other's responses to FOI requests and ME. • As described in more details in Action 50, Sustainability Officers have been working closely with colleagues in Transport to monitor the air quality impact of Lambeth's Low Traffic Neighbourhoods. • The lead officer for Transport has provided updates to this Action Table. The ASR has been signed off by Lambeth Assistant Director for Sustainable Growth and Climate Change Response
15.1		Prepare information pack for businesses on how to help improve air quality and reduce exposure for employees and customers	Throughout Plan	• Our business info pack available here has been re-designed to be more appealing and continues to remain available on our website. We update it on a regular basis with new content, and we continue to direct businesses onto it at every opportunity (e.g. during online meetings, conferences, in-person events). • We continue to work with BIDs on a regular basis to raise awareness of air pollution among their businesses. • Sustainability Officers are part of the Environmental Steering Group of Brixton BID. They attend quarterly meetings, and actively contribute to support environmental activities led by the BID, with their knowledge of local air quality. • For a detailed update on our work with Brixton BID, focused on sustainable mobility, see Action 25.

				• As part of a campaign led by Global Action Plan to raise awareness of air pollution during the 1st national lockdown in Lambeth and Southwark, Sustainability Officers were interviewed to discuss services available to Lambeth businesses to minimise their contribution to air pollution. The interview resulted in a dedicated webpage on Global Action Plan's website, with resources for Lambeth's businesses. We direct businesses onto this page at every opportunity. The webpage can be found here.
15.2		Annual business engagement event to educate and raise awareness regarding air quality; and to find joint working opportunities	Throughout Plan	• As part of Lambeth Clean Air Week in October 2020, Sustainability Officers organised a webinar open to the public, and invited businesses and NGOs to discuss their programmes to tackle air pollution in Lambeth. The webinar was attended by ~50 members of the public, as well as Councillors, businesses and Lambeth Council staff. Among the businesses that presented at the meeting were Brixton BID, Guy's and St Thomas's Charity, Cross River Partnership. Each presenter delivered a 10-minute presentation to discuss why air quality was important to them, educate and inspire other organisations to tackle clean air. The recordings of the webinar are publicly available here. • In October 2020 Lambeth successfully applied to DEFRA's Air Quality Grant Scheme through a joint bid led by Cross River Partnership, to deliver their Clean Air Villages 4 programme. As part of Clean Air Villages 4, in 2021 and 2022 we will be working on a consolidation project with Lambeth businesses.
16.1		Promote and build on the work of airTEXT to alert sensitive receptors and other vulnerable citizens of high pollution days	Throughout Plan	• In 2020 we have contributed financially to, and advertised AirTEXT to our residents • Our social media campaign to promote the use of AirTEXT in Lambeth reached over 400,000 people over the course of 3 months, and resulted in 122 social media engagements • Sustainability Officers have reviewed the use of AirTEXT in Lambeth, with a view to improving usage and uptake. It was identified that 230+ residents have subscribed to AirTEXT and use it actively. • We continue to contribute financially to www.londonair.org.uk through our LAQN membership, to make air quality data available to our residents.
16.2		Increase promotion of cycling and walking websites and apps, such as walkit.com	Throughout Plan	• In 2020, Lambeth Active Travel Team have used walking app "Go Jauntly" to provide an app based version of our series of Secret Lambeth walks. • Lambeth links to Santander cycles based app and walkit.com in our staff travel guide. • Link to Lambeth Active Travel Website and apps are provided in regular newsletters and tweets
17.1		Continue to actively engage with all schools in the STARS programme	Throughout Plan	• We have held regular meetings with schools and have run two teacher champion workshops to support schools with STARS, supported by our TfL Healthy Streets Officer • Sustrans delivered the 'Bike It' behaviour change programme to 12 schools, with a total of 114 activities delivered • Youth Travel Ambassador event were delivered with TfL • Living Streets engaged with ten schools for Walk Once a Week

				• Online Road Safety Theatre was delivered to all Secondary schools in borough • Online pedestrian training was provided to 10 Primary schools
17.2		Continue to support schools to implement travel plans moving from bronze to silver to gold	Throughout Plan	• TfL STARS accreditation was delayed in 2020 due to Covid-19 • Currently, there are 20 gold accredited schools, 8 silver accredited schools and 25 bronze accredited schools in the borough • Accreditation status for schools is carrying over into next year
17.3		Engage with Nurseries	Throughout Plan	• During 2019 officers visited schools and nurseries to create our green screen programme. In 2021 we will formally announce which schools and nurseries will receive green screens. • In 2019, two nurseries in Lambeth took part in the Mayor's Air Quality Audits programme: Ethelred Nursery and Triangle Nursery. Lambeth continues to work with the two nurseries, WSP and the GLA to deliver the recommendations published in early 2020 following the audits. Each nursery received £4.5k from the GLA to deliver the recommendations, and Lambeth match-funded this. In consultation with Lambeth Officers and the GLA, in 2020 Ethelred Nursery introduced indoor air purifying plants, improved the scooters/cycle parking, procured a number of anti-idling resources, including a banner which was placed outside the nursery, and is now looking to introduce a small green screen. Ethelred Nursery is looking to fund a green screen in 2021. • In late 2020, the Climate Change and Sustainability Team allocated LIP funding towards a green screen at Guy's and St Thomas' Day Nursery. The nursery was identified as being exposed to the pollution from a major road by the Air Quality Team at Guy's and St Thomas' Hospital. The green screen will be installed in 2021 and diffusion tubes will be utilised to monitor its impact.
17.4		Travel Plans Poster campaign for under 5s: link between active travel and air quality	Completed	As explained in our 2019 ASR, this action is now complete
18		Air quality at schools and other educational institutions	Throughout Plan	• During 2019 officers visited schools and nurseries to create our green screen programme. In 2021 we will be formally announcing at which schools and nurseries in the borough we will be building green screens. In addition to this, in 2020 we built green screens at Rosendale Primary School. • During LCAW 2020 we held a virtual session for pupils at Telferscot Primary School as an 'air quality detectives' activity, delivered by Sustrans. We also ran a competition for years 5 and 6 in Lambeth, to design a poster presenting a pledge to tackle poor air quality. More details can be found here, here and here • Lambeth Schools Air Quality Programme will work with 5 schools to cut air pollution in and around the school, by guiding them through the development and implementation of a clean air action plan with a mix of technical, behavioural and educational projects. The project will be formally announced in 2021 with support from GSTTC, by GAP, Arup and the University of Surrey.

				• 11 Breathe London AQ monitors were installed across 5 Primary School locations in the borough. Half of the participating locations had School Street schemes introduced and the other locations were used as control studies. While there were challenges due to schools being shut in December, the results showed improved air quality at School Street locations during drop off and pick up time • In 2020, we partnered with Guy's and St Thomas' Charity (GSTC) and Gehl Architects on a project to understand the experience and effects of poor air quality in Vauxhall and Oval – part of GSTC's 10 year programme aimed at addressing the health effects of poor air quality. The project had a particular focus on children and young people, and the carers of children, and engaged with schools and parents/carers in the area. Three pilot projects were generated by the project aimed at attracting people to spend time in areas with better air quality, and mitigating in places with worse air quality which people needed to move through or dwell in and further investigation as to how these may be implemented is taking place. • Throughout 2020, we continued to oversee the projects delivered by Lambeth schools as part of the Love Lambeth Air Grant Scheme 2019 a series of grants offered by the Climate Change and Sustainability Team to educational institutions to raise awareness of air pollution. This included: a) A greening project at Lilian Baylis Technology School b) A new garden, made of specific pollution absorbing plants, at Saint Gabriel's College c) A screen and an air quality monitoring project at Trinity Academy d) Part of a green screen and garden at Archbishop Tenison School Academy e) A greening project at Michael Tippet School • We continue to work with Idling Action London to raise awareness of the dangerous impact of idling, particularly around schools. In January 2020, we delivered an anti-idling event at Iqra Primary School (Brixton). Further in-person anti-idling events were planned for 2020, but could not be delivered due to covid-19 restriction. We continue to direct Lambeth schools onto the website and resources of Idling Action London at every opportunity, and we actively encourage schools to host their online sessions and assemblies.
19.1		Air Quality to be considered when making decisions	Throughout Plan	• The Climate Change and Climate Change and Sustainability Team and the Strategy Team have developed and piloted an Impact Assessment Tool to inform the impact of decision making on air quality and other sustainability indicators. • The Climate Change and Climate Change and Sustainability Team have undertaken a review of Lambeth's Responsible Procurement Policies and provided recommendations on air quality criteria.
19.2		Air quality awareness increased amongst Lambeth officers	Throughout Plan	• Staff from 7 different divisions within the Council attended an internal webinar delivered by the Climate Change and Sustainability Team to discuss Lambeth's

				climate change and air quality work, as part of our Lambeth Clean Air Week celebrations in October 2020. • In January 2020, the Climate Change and Sustainability Team launched Net Zero Heroes, an awareness raising programmed delivered in partnership with behaviour change experts "Jump", open to all Lambeth staff. 200 members of staff are currently registered on the programme, which rewards them for completing positive environmental actions. This includes air quality actions, such as cycling to work instead of driving, taking an air pollution knowledge quiz, or participating in a step challenge. The Net Zero Heroes programme features regularly on the staff weekly newsletter. The programme's homepage can be seen here.
20		Work with Lambeth Youth Council to raise awareness	Throughout Plan	• The climate change and Climate Change and Sustainability Team worked with the Youth Council through a series of workshops to understand young people's concerns and priorities in relation to climate change. The work has continued, and will feed into the citizens' assembly on climate change. The Youth Council are also represented on the steering group for the assembly.
21.1		Work closely with colleagues in Adult Social Care and Housing to identify vulnerable citizens	Throughout Plan	• Awareness raising resources for our vulnerable residents have been refreshed and continue to be available on our air quality pages here. • In late 2020 Lambeth successfully applied to the Mayor's Resilience Fund. We are now working with the Greater London Authority to commission an organisation to produce a digital tool to map locations of vulnerable residents across Lambeth, assess their exposure to PM2.5, and identify how local interventions can minimise exposure to PM2.5, as well as local mortality and morbidity levels. Colleagues from our Public Health Team will provide strategic input to the project. • In 2020, as part of the LTNs modelling project (see Action 50 for more details), we commissioned a consultancy to produce a series of air quality maps of Lambeth, outlining locations of sensitive receptors (hospitals, care homes, schools, nurseries), with support from our Public Health Team. The maps will show sensitive receptors' exposure to NO2, PM10 and PM2.5. They will be produced in 2021, and will be utilised to support the LTNs consultation, but also to raise awareness of sensitive receptors' exposure to air pollution.
21.2		Work closely with Age UK and other relevant organisations to produce tailored leaflets for older citizens and to visit future events aimed specifically at older citizens	Complete	As explained in our 2019 ASR, this action is now complete
22		Engagement with black and other minority ethnic citizens	Throughout Plan	• As per Action 38, the Climate Change and Sustainability Team intends to increase the size of its AQAP Steering Group in 2021. This is to ensure the Steering Group continues to be reflective of Lambeth's population, and has the capacity to support the delivery of Lambeth's new AQAP. We aim to actively recruit representatives from groups that are disproportionately affected by air pollution, including multiple

				minority groups and people with disabilities. We aim to recruit Lambeth residents, as well as representatives from Lambeth organisations. Our 2021 ASR will contain an update on this. • Cllr Holland - Deputy Leader of the Council (Sustainable Transport, Environment and Clean Air) has also met with the Royal National Institute for the Blind and had several meetings with Wheels for Wellbeing on active travel and air quality measures introduced through our emergency transport programme in response to the coronavirus pandemic
23		Annual Residents' Air Quality Conference	Throughout Plan	• Given the difficulties in delivering events during the covid-19 pandemic, and in order to maximise engagement, it was decided to combine the Annual Residents Conference with the Annual Business Engagement event. Both events were held during Lambeth Clean Air Week, in October 2020. Please refer to Action 15.2 for an update.
24.1		Procurement policy to include a requirement for suppliers providing services over £100,000 to have attained silver Fleet Operator Recognition Scheme (FORS) accreditation	Completed	As explained in our 2019 ASR, this action is now complete
24.2		Update procurement policy to give preferential scoring to bidders delivering goods and services with zero or low emission vehicles when there is a heavy transport element to the tender	Completed	As explained in our 2019 ASR, this action is now complete
25		Consolidation (Low Emission Logistics)	Throughout	• As per our 2019 ASR, the deadline for this action has changed to 'throughout', as even though our Low Emission Logistics project has finished, we are still working with our residents and businesses to consolidate deliveries. • The draft Lambeth Local Plan applies London Plan policy T7 on sustainable freight and servicing, encouraging off-site consolidation for larger developments, smart procurement measures and innovative last mile logistics solutions to reduce air pollution. • We continue to promote to business and partners the low emission's directory produced by Cross River Partnership as part of phase 1 of their Clean Air Villages project. • In 2019, as part of Cross River Partnership's Clean Air Villages 2 Project, Lambeth, ZipCar and Brixton BID provided an electric van to Brixton businesses, to minimise emissions from deliveries. Brixton businesses could utilise the van free of charge until the end of the project in October 2020. In October 2020, Brixton BID,

				Lambeth and ZipCar negotiated an agreement to enable businesses to continue to use the van, at a competitive price. The van continues to be utilised regularly by local businesses for deliveries. As of December 2020 (15 months since project inception): a) 30 businesses regularly use the van b) The van was booked 487 times, driven for 7987 miles or 4305 hours, saving 1480kg of CO2 (compared to a diesel equivalent) • In April 2020, as part of Cross River Partnership's Clean Air Villages 3 project, Lambeth worked with King's College Hospital to minimise the pollution generated by its operations. Cross River Partnership provided dongles to Kings College Hospital, which were utilised to monitor mileage and pollution generated by various non-emergency transport vehicles. Following the monitoring project, the Hospital decided to lease 3 electric vehicles, in order to minimise the pollution from its transport services and achieve financial savings. We were able to constructively engage hospitals (complex and sensitive environments), and also support their transition to low-emission transport modes. We continue to liaise with the hospital to support their plans to install charging points within their premises. • We remain members of Cross River Partnership, and in 2021 we will work on a consolidation project with Brixton BID, as part of Clean Air Villages 4.
26	**Delivery, servicing and freight (actions 24-26)** **Borough Fleet Actions (actions 27-31)**	Introduce Virtual Loading Bays (VLB) allowing the user to book kerb space online for loading and unloading at a particular time and place; and priority for ultra-low emission delivery vehicles	Completed	In the AQAP we have now created Action 50 to monitor the development of the Brixton Liveable Neighbourhood. This action is therefore marked as complete, as it has been superseded by Action 50.
27		Obtain Fleet Operator Recognition Scheme (FORS) Gold accreditation for Lambeth's own fleet	March 2022	• Lambeth has made good progress with its plan to achieve Gold status for the internal fleet. The Lambeth Landscapes division has the single largest fleet within Lambeth which operates approximately 50% of the Lambeth's entire fleet has achieved FORS bronze accreditation. • The Lambeth landscapes division also aim to achieve silver by the end of 2021 with the aim of achieving Gold by 2022. This is dependent on the level of recuses available. • At current a fleetwide strategy report is being drafted that will hopefully bring on board the remaining fleet within Lambeth and also achieve a more centralised fleet management system which will help to achieve the council wide goal of achieving FORS gold accredited. • The Lambeth landscapes division have also achieved FTA van excellence (now known as logistics UK) accreditation for over 2 years which is a more suited accreditation for the type of fleet that is currently run within Lambeth

28		Increase the number of hydrogen, electric, hybrid, bio-methane and cleaner vehicles in the borough's fleet and accelerate uptake of new Euro VI/6 vehicles	March 2022	• The council has been increasing the proportion of its vehicles that are electric by ensuring that all vehicles are replaced with an electric vehicle where operationally possible. We increased the total number of electric vehicles in our fleet from 10 in 2018 to 42 as of April 2021. • The council in 2020 for the first time, engaged a third party supplier to issue payment cards that enables charging of our Electric vehicles across multiple electric charging point providers. This contract is intended to provide increased access to EV charging, thereby making the use of electric vehicle more practical for service delivery. • As well as the contract above, the council currently has several procurements at various stages which will provide additional EV charging points throughout the Borough. It is envisaged that these will be provided by several suppliers with third party providers based upon the type of charging points procured. • Currently the Lambeth landscapes division has been running a fleet of 100% electric and plug in hybrid vehicles for up to three years now. This contribution to the fleet is in the region of over 30% of the Landscapes division Fleet zero or ultralow emissions. • A number of EV charging points have been installed within Lambeth's depots allowing charging of charge cancel fleet without the use of public infrastructure.
29		Smarter Driver Training for Lambeth fleet drivers to increase fuel efficient driving	Throughout Plan	• In August 2020, Lambeth took part in Idling Action London's "Engines Off" business campaign. All Lambeth fleet drivers have now taken managers took the anti-idling training and cascaded the message down to their teams. Lambeth took the no-idling pledge and continues to work with its fleet and contractors to minimise idling across its operations. The Lambeth Landscapes division drivers have undergone several training courses ranging from safe urban driving FORS safety eLearning courses covering cycle safety, pedestrian smart, Van Smart, Bridges Strike. • The Lambeth Landscapes management team have also undergone FTA training. All Lambeth Landscape Driver also undergo a specific driver induction. • We continue to offer smarter driver training to officers in line with the Fleet and Road Risk management policy.
30	**Borough Fleet Actions (actions 27-31) Localised Solutions (actions 32-39)**	Conduct feasibility study for introducing regenerative street sweepers into Lambeth's street cleansing fleet	March 2022	• As per our 2019 ASR, the feasibility study was completed in March 2018. In Round 3 of the Mayor's Air Quality Fund, we submitted an application in partnership with LB Southwark to investigate the impact of street sweeping on air quality. Our application was successful, and King's College London (now Imperial College) has been appointed to lead on the research. A literature research was completed in 2020, and utilised to define a methodology for a trial. In Spring 2021, a number of street sweepers will be tested on roads in Lambeth and Southwark. Imperial College will assess their air quality impact and develop a report with recommendations to minimise pollution from street cleansing equipment, in early

				2022. The street cleansing teams of Lambeth and Southwark are supportive of, and actively participating in the project.
31		Review of car users to determine whether the number of Lambeth officers driving vehicles for work could be reduced	Complete	As explained in our 2019 ASR, this action is now complete
32		Green Infrastructure	Throughout Plan	• For an update on our green screens programme, please see Action 37. • In 2020, Our first Poikilohydric Living Wall was installed at St Anne's Primary School. The wall serves as acoustic barrier and to enhance the playground's environment for children at the school. The design was driven by a set of organic patterns made out of multi-scalar/parametric pockets which host transplanted moss provided by volunteers from various parts in London. The project was coordinated by Transport for London together with LB Lambeth Sustainability Team with the support from University College London's research into innovative materials to create a living wall. • A fully Integrated Catchment Model (ICM) has been completed for the entire borough extent and upstream hydraulic catchment. The ICM has been used to develop a new Surface Water Management Plan, that has identified 13 high priority flood alleviation schemes across the borough that will use GI based Sustainable Drainage Systems. Two schemes have completed their design (RIBA stage 3) that will provide significant areas (120sqm and 925sqm) of new GI (grey to green). • Work has commenced on determining the borough's climate vulnerabilities (similar to the GLA's climate vulnerability mapping), to help understand where new GI is sparse and needed for the borough to adapt to CC. This work will guide the council's decision-making process for GI schemes. • Successful discussions with Lambeth's Housing Team who under their own initiative constructed a new 67sqm Rain Garden within Tulse Hill Estate, which was completed in early 2021 • In 2019, CLIP funding was allocated to a number of community organisations to deliver local greening projects and improve the state of air quality. We continued to oversee the delivery of those projects throughout 2020. The projects are: a) A community garden at Vauxhall City Farm. A short film was made to promote the garden, during Lambeth Clean Air Week in October 2020, and can be found here. b) A small greening project in Kennington Park, delivered by Bee Urban c) A green wall with edible plants at the community garden of Lambeth GP Food Co-op. A short film was made to promote the project, during Lambeth Clean Air Week in October 2020, and can be found here. d) Part of a community garden at Reay Primary School • The following projects were also funded, but have had to be paused due to covid, and work is due to start again in 2021

				a) A number of planters and info labels for the Waterloo area, delivered by We Are Waterloo BID b) A community garden at Ethelred Estate, in Kennington • In late 2020 the Climate Change and Sustainability Team identified a number of organisations to deliver additional local greening projects to improve the state of local air quality. LIP funding was allocated towards these projects, which will be delivered in 2021. Our 2021 ASR will contain an update on this.
33		Investigate other measures, such as building a Low Emission Neighbourhood (LEN)	Throughout Plan	• Lambeth has implemented 5 Low Traffic Neighbourhoods as part of our Covid Transport Response. These have been implemented as trials which are ongoing. Key measurable objectives of the LTNs are to reduce motor vehicle traffic overall, which is expected to have a positive impact on air quality. At the present time there are no plans for LENs although this is under review. Stakeholder engagement as part of the Brixton Liveable Neighbourhood project identified a preference for general traffic reduction measures ahead of an emissions-based approach • Sustainability Officers are monitoring the air quality impact of the emergency traffic schemes delivered in Spring 2020 (i.e. Low Traffic Neighbourhoods, or LTNs). Air quality consultants have been appointed to define a baseline pre-intervention – for the pollutants of NO2, PM10 and PM2.5 – and to model air quality changes within the LTNs and on the main roads, through the ADMS-Urban software. Please see action 50 for more details. • In February 2020, Lambeth began a project with Bosch and TfL, with the aim of delivering a traffic light strategy on Brixton Road and assessing its ability to reduce congestion and local pollution levels. Bosch's air quality monitors were installed on Brixton Road, and data from those monitors, as well as traffic data was input into a Bosch air quality modelling software. The traffic light strategy contributed to a reduction in local Nox levels. More details will be released in 2021, and the 2021 ASR will contain a more detailed update. See here and here for some publicity by Bosch and TfL.
34		Investigate whether to install Santander bikes or other bike schemes outside Brixton Underground station, along Brixton Hill, Streatham Hill and Streatham	March 2022	• Santander bikes now reach as far south as Windrush square. Officers continue to explore ways of funding expansion of the TfL operated Santander bikes, and have worked with TfL to expand the scheme to Clapham Common in 2020. Dockless mobility including dockless cycle hire has the potential to enable cycle hire to expand to the entire borough.
35	**Localised Solutions (actions 32-39) Highways and Transport (actions 40-51)**	Lambeth is already part of the Central London Air Quality Cluster Group, which includes Southwark. Increase joint working with other neighbouring boroughs (Wandsworth, Merton,	Throughout Plan	• Lambeth continues to work with LB Merton and the Regulatory Services Partnership (LBs Merton, Richmond and Wandsworth) on the pan-London NRMM project. • We are part of the West London Green Homes Grant group of boroughs for the Local Authority Delivery arm of the grant scheme, led by LB Ealing. • We remain a member of the London Air Quality Network to monitor air pollution across London and make real time air quality data available to all our residents

		Croydon, Bromley and Lewisham) to tackle air pollution		• We continue to remain members of the Central London Air Quality Cluster Group, and provide regular updates to the GLA
36		Continue project to reduce pollution at Waterloo station from idling taxis	March 2022	• The issue of idling taxis at Waterloo station is referenced under Policy P5d and Project Reference Pr3 of the South Bank & Waterloo Neighbourhood Forum's now adopted Neighbourhood Plan. There is local support for action on this ongoing issue, and we are looking to address this more closely in 2021/22. • Thanks to our work with Idling Action London and colleagues in Parking, idling is now a fineable offence across the whole of Lambeth. For an update on anti-idling fines, please see Action 40.1
37		Building green screens at Schools	March 2022	• During 2019 officers visited schools and nurseries to create our green screen programme. In 2021 we will be formally announcing at which schools and nurseries in the borough we will be building green screens.
38		Recruit citizens to help form a Steering Group to monitor our Air Quality Action Plan	Throughout Plan	• During 2020, the Lambeth Air Quality Action Plan Steering Group met January 29, 8 September, 10 December • The group continues to meet and anyone interested in joining is encouraged to email sustainability@lambeth.gov.uk. • Lambeth Air Quality Action Plan 2017-22 is expiring, and the Climate Change and Sustainability Team intends to start the consultation for the new AQAP in 2021. At the same time we aim to increase the size of the Steering Group. The Group is currently made of 9 Lambeth residents and representatives from Lambeth organisations (only 5 of which are actively attending and contributing to meetings), as well as representatives from the Climate Change and Sustainability Team and the Public Health team. We aim to recruit new members to ensure the Steering Group continues to be reflective of the borough's population and has the right balance of air quality knowledge and commitment, to support the delivery of our new AQAP.
39		Get sign-off for report and implement Tree Wardens scheme	Complete	As explained in our 2019 ASR, this action is now complete
40.1		Joint anti-idling project with other London Boroughs	Complete	As explained in our 2019 ASR, this action is now complete.
40.2		Continue to build on anti-idling work from MAQF project (Action Point 40.1)	March 2022	• Lambeth and its contractor APCOA started to issue fines for idling vehicles in May 2020. APCOA trained CEOs to be Clean Air Champions by enforcing on idling vehicles within the borough of Lambeth. Clean Air Champions not only enforce, but also raise awareness about air quality with drivers, passers-by and businesses. They talk to drivers who are not idling and thank them for switching off, thus promoting good behaviour change. According to our Clean Air Champions, the worst performing idling areas in Lambeth are schools, car parks, and high streets. We continued to tackle those areas throughout 2020.

				• Our application to Round 3 of the Mayor's Air Quality Fund, with the City of London and Camden as lead boroughs, was successful. Therefore, Lambeth remains a member of Idling Action until March 2022 when funding expires. • We continued to partner with Idling Action London throughout 2020, to deliver awareness raising, trainings and respond to residents' enquiries. We were unable to deliver in-person events due to covid19 restrictions, but we delivered and took part in a series of online campaigns, including the "Engines Off" business campaign in August 2020. For an update, please see action 29. • The Climate Change and Sustainability Team set up a system to deal with anti-idling enquiries from residents. When an idling-related complaint is received, the Sustainability and Parking team send their enforcement team to patrol the area frequently for a period of 2-3 weeks, and report on idling-related offences. Depending on the number of complaints and state of idling, the Climate Change and Sustainability Team might organise an anti-idling event in the area, with support from Idling Action London. The resident is informed that action is taking place, and is invited to take part in the anti-idling event – with training provided by Idling Action London - and to continue to report idling, to inform our enforcement efforts. This system has received positive feedback from our Councillors – who have asked to join anti-idling events when restrictions allow – as well as by our residents, who are confident that action is taking place. • In 2018, the Climate Change and Sustainability Team installed charging points in Brockwell Park, Clapham Common and Streatham Common, to minimise idling emissions from ice-cream vans. Throughout 2020 we continued to maintain the charging points. • In October 2020, we invited Idling Action London to record a video about the dangerous impact of idling in London, as part of our evidence for Lambeth's Citizens Assembly. The video can be found here.
41		Work with car clubs to increase amount of electric, hydrogen and ultra-low emission vehicles in their fleet	Throughout Plan	• As per Action 25, thanks to an agreement with ZipCar and Brixton BID, an e-van continues to be available for use to Brixton businesses, at a competitive rate, to reduce pollution from deliveries. 30 businesses use the van on a regular basis, and since inception (October 2019), the van has been utilised 487 times, driven for 7987 miles (or 4305 hours) and has saved 1480kg of CO2 (compared to a diesel equivalent). • As per Action 25, thanks to our work with Cross River Partnership as part of the Clean Air Villages 3 project, Kings College Hospital has leased 3 electric vehicles for its non-emergency transport services. • In addition to Brixton's e-van five of the borough's EV chargepoints are dedicated for car club use.
42.1	**Highways and Transport (actions 40-51)**	Increase amount of citizens cycling outside the 18-38 age group	March 2022	• In 20/21 of all the people who supplied their age bracket 176 users of cycle hangars in Lambeth were outside this age group • So far this year 77 people outside of the age range tried a bike using the TBYB scheme.

				• Approx 367 people outside of the age bracket took cycle training in 2020 up until December. • We offer Bikeability training to all schools in the borough.
42.2		Very Important Pedestrian Days	Throughout Plan	• Unfortunately, we were unable to have a Car Free Day in 2020.
43		Parking	Throughout Plan	• Diesel surcharge for on street paid for parking (paybyphone) came into place in February 2021, whereby non-Euro 6 diesel vehicles are charged an additional 50% of the parking tariff. • Statutory consultation for the St Leonards CPZ commenced in May 2021. A plan is in place to start consultation in other areas this year.
44		Installation of more residential electric charging points	March 2022	• There are 183 lamp-column chargepoints currently installed with a further 65 to be operational by the end of May. • chargepoints have been installed on council run housing estates • Further chargepoints will be installed on-street and on estates throughout 2021/22.
45		Installation of rapid chargers to help enable the take up of electric taxis, cabs and commercial vehicles (in partnership with TfL and/or OLEV	Throughout Plan	• Currently there are 9 rapid (50kW) chargepoints operated by Lambeth. • A tender exercise has been run to appoint a supplier to install up to 14 ultra-rapid chargepoints (100kW+). Award of this contract is pending with installation due to take place throughout 2021/22
46		Reprioritisation of road space; reducing parking at some destinations and/or restricting parking on congested high streets and A roads to improve bus journey times, cycling experience, and reduce emissions caused by congested traffic	Throughout Plan	• The council has introduced a range of measures allocating road space to sustainable modes of travel. We have implemented 5 Low Traffic Neighbourhoods on a trial basis, as well as number of Healthy Route interventions where we have created segregated space for cycling and new and improved crossings. We have worked with TfL to bring forward improvements on the roads they control, including the A3 and the A23, with measures implemented as part of the London Streetspace Plan, including the removal of most of the parking on these routes and the introduction of 24/7 bus lanes. We continue to work with TfL on the A23 Streatham Hill scheme which is due for implementation in 22/23.
47.1		Campaign for low-emission buses to serve all routes in Lambeth	Throughout Plan	• The council continues to press the Mayor to bring forward low-emission buses for the whole of Lambeth.
47.2		Continue to request extension of ULEZ to south of the borough	Throughout Plan	• The extension of the Ultra-Low Emission Zone to the south circular will take place this year and the council continues to press for it to be extended further to cover the entire borough.
48		Link air quality to road closures for street parties and the Play Streets scheme	Throughout Plan	• Play Streets have been suspended throughout the pandemic, they are due to be promoted more in 2021, as restrictions allow • We have implemented 19 new School Streets bringing our total to 21. All are linked to improved air quality.

49		Read through Lambeth Transport Plan 2011-31, the Cycling Strategy and also the Transport Strategy and add any relevant actions in to AQAP	Completed	As explained in our 2019 ASR, this action is now complete.
50		Brixton Liveable Neighbourhood and Lambeth Low Traffic Neighbourhoods	Throughout Plan	• The title of this action has been amended to reflect the emergency transport schemes (i.e. Low Traffic Neighbourhoods) delivered by Lambeth since March 2020. • As part of our emergency response to the current COVID-19 pandemic, we have been implementing emergency measures to enable people move safety around the borough. These measures include Low Traffic Neighbourhoods. We have agreed and published our programme of interventions and details can be found here. The LTNs are supported by experimental traffic orders and we are considering all representations and objections as well as monitoring data to assess how the trials are going. There will be a full public consultation on each scheme prior to any decision on the future of the LTNs being taken. • The Ferndale and Railton LTNs all within the Brixton Liveable Neighbourhood area. The BLN project itself has been paused pending confirmation of further funding from TfL. • In 2020, the Transport and Climate Change and Sustainability Teams commissioned a consultancy to deliver an air quality modelling project, to assess the air quality implications of the LTNs. Using ADMS-Urban, the consultants will combine multiple data sources (traffic data, meteorological data, terrain data, and data from our air quality monitoring stations and diffusion tubes) to assess changes in NO2, PM10 and PM2.5 resulting from the introduction of the LTNs. As explained in Action 21.1, the modelling will result in a series of air quality maps, which will be produced in 2021 and utilised to support the LTNs consultations, and for awareness raising campaigns.

4. Planning Update and Other New Sources of Emissions

Table L. Planning requirements met by planning applications in Lambeth in 2020

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	34
Number of planning applications required to monitor for construction dust	25
Number of CHPs/Biomass boilers refused on air quality grounds	0
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	0
Number of developments required to install Ultra-Low NO_x boilers	4
Number of developments where an AQ Neutral building and/or transport assessments undertaken	29
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	0
Number of planning applications with S106 agreements including other requirements to improve air quality	0
Number of planning applications with CIL payments that include a contribution to improve air quality	0
NRMM: Central Activity Zone and Canary Wharf Number of conditions related to NRMM included. Number of developments registered and compliant.	e.g. 8 conditions included 4 registered and compliant 0 unregistered/uncompliant and being chased.

Condition	Number
Please include confirmation that you have checked that the development has been registered with the GLA through the relevant NRMM website and that all NRMM used on-site is compliant with Stage IIIB of the Directive and/or exemptions to the policy.	
NRMM: Greater London (excluding Central Activity Zone and Canary Wharf) Number of conditions related to NRMM included. Number of developments registered and compliant. Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIA of the Directive and/or exemptions to the policy.	e.g. 25 conditions included 6 registered and compliant 1 unregistered/uncompliant and being chased.

Planning officers consult the Climate Change and Climate Change and Sustainability Team on all major development, all proposed development in an AQFA and all proposed development close to or to be used by a sensitive receptor, for comment and recommended conditions regarding air quality.

Lambeth is part of the pan-London NRMM project which has full-time officers doing site audits to enforce NRMM standards. A standard NRMM condition is also recommended for all decision notices the Climate Change and Climate Change and Sustainability Team reviews.

4.1 New or significantly changed industrial or other sources

No new sources identified.

Appendix A Details of Monitoring Site Quality QA/QC

A.1 Automatic Monitoring Sites

Routine calibrations of equipment and periodic site audits were carried out by Enviro Technology, and Imperial College London's Environmental Research Group (ERG). Routine calibrations took place every two weeks.

In 2021, Lambeth's Climate Change and Climate Change and Sustainability Team appointed a new provider, Matts Monitors Ltd, to deliver the routine calibrations and site audits from March 2021 to March 2023. Ricardo PLC is contracted by Matts Monitors to deliver fortnightly LSO visits.

We continue to be members of the London Air Quality Network, and ERG at Imperial College London is responsible for the automatic monitoring stations' data collection and data processing.

PM_{10} Monitoring Adjustment

The correction of 1/1.04 is applied to raw PM10 BAM data at an hourly basis so the fully ratified PM10 data is reference equivalent. This is done by ERG at Imperial College London as we are part of the London Air Quality Network.

A.2 Diffusion Tubes

Analysis was performed by Gradko International Ltd. Tubes are prepared with 20% Triethanolamine (TEA) in Water. Tubes are analysed by UV Sprectrophometry. The preparation procedures adhere to the guidance detailed in the document 'Diffusion Tubes for Ambient NO2 Monitoring: Practical Guidance for Laboratories and Users', Issue 1a Feb.2008 (issued by AEA Energy and Environment). Gradko participate in the independent AIR-PT scheme and partake in the annual co-location study.

Co-located diffusion tubes are installed at Brixton Road air quality monitoring station LB4. We have compared the diffusion tube data at our colocation site to reference equivalent NO2 analysers, and submitted our questionnaire to DEFRA. However, due to low data capture, we could not participate in the diffusion tube co-location study, and our questionnaire was rejected. It is intended that we participate in the study in future years if sufficient data is available.

Discussion of Choice of Factor to Use

A national bias-adjustment factor of 0.81 has been used (Gradko bias adjustment factor for 20% TEA in Water in 2020), instead of a local bias-adjustment factor of 0.85.

We could not participate in the co-location study in 2020 due to low data capture. We also didn't meet any of the criteria highlighted in the LLAQM Technical Guidance 2019 for which the locally obtained factor may be more representative. We have therefore used the Gradko bias adjustment factor instead of our local factor.

The bias-adjustment factors used in previous years are outlined below.

Table M. Bias Adjustment Factor

Year	Local or National	If Local, Version of National Spreadsheet	Adjustment Factor
2020	National		0.81
2019	National		0.93
2018	National		0.93

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

Data capture by our diffusion tubes was less than 75% at all sites. Therefore, all means had to be annualised. The annualization factor is presented in Table M above.

We have used background data from the following sites: Streatham Green LB6 (London Borough of Lambeth); Elephant and Castle Sk6 (London Borough of Southwark); Covent Garden WM5 (Westminster City Council) and Bloomsbury BL0 (London Borough of Camden). All stations had at least 85% data capture in 2020. SK6, WM5 and BL0 are background sites located in nearby boroughs – well within the recommended radius of under 50 miles – and are all representative of typical London urban background locations.

Table N. Short-Term to Long-Term Monitoring Data Adjustment

Diffusion Tube ID	Annualisation Factor Streatham Green LB6 (Lambeth)	Annualisation Factor Elephant and Castle SK6 (Southwark)	Annualisation Factor Covent Garden WM5 (Westminster)	Annualisation Factor Bloomsbury BL0 (Camden)	Average Annualisation Factor	Raw Data Simple Annual Mean (µg/m3)	Annualised Data Simple Annual Mean (µg/m3)	Comments
DT1	0.9468	0.8724	0.8797	0.9243	0.9058	-	-	*Triplicate Site with DT1, DT2 and DT3 - Annual data provided for DT3 only*
DT2	0.9468	0.8724	0.8797	0.9243	0.9058	-	-	*Triplicate Site with DT1, DT2 and DT3 - Annual data provided for DT3 only*
DT3	0.9468	0.8724	0.8797	0.9243	0.9058	**77.5**	**70.2**	*Triplicate Site with DT1, DT2 and DT3 - Annual data provided for DT3 only*
DT4	0.9134	0.8777	0.8312	0.8887	0.8778	36.4	31.9	
DT5	0.9247	0.8887	0.8696	0.9050	0.8970	**47.0**	**42.2**	
DT6	0.9247	0.8887	0.8696	0.9050	0.8970	34.6	31.0	
DT7	0.9019	0.8919	0.8419	0.8771	0.8782	**41.0**	36.0	
DT8	0.9247	0.8887	0.8696	0.9050	0.8970	**43.2**	38.7	
DT9	0.9088	0.8626	0.8660	0.8710	0.8771	**51.2**	**44.9**	
DT10	0.9247	0.8887	0.8696	0.9050	0.8970	33.7	30.3	
DT11	0.9247	0.8887	0.8696	0.9050	0.8970	**43.0**	38.5	
DT12	0.9134	0.8777	0.8312	0.8887	0.8778	**50.7**	**44.5**	
DT13	0.9708	0.9510	0.9030	0.9504	0.9438	**47.7**	**45.0**	
DT14	0.9247	0.8887	0.8696	0.9050	0.8970	**51.4**	**46.1**	
DT15	0.9247	0.8887	0.8696	0.9050	0.8970	**54.4**	**48.8**	
DT16	1.0123	0.9441	0.9248	0.9897	0.9677	39.9	38.6	
DT17	0.9247	0.8887	0.8696	0.9050	0.8970	**48.4**	**43.5**	
DT18	0.9247	0.8887	0.8696	0.9050	0.8970	**42.7**	38.3	
DT19	0.8567	0.8169	0.7674	0.8101	0.8128	**59.0**	**47.9**	
DT20	0.9468	0.8724	0.8797	0.9243	0.9058	**41.8**	37.8	
DT21	0.9224	0.8732	0.8467	0.8926	0.8837	31.1	27.5	
DT22	0.9224	0.8732	0.8467	0.8926	0.8837	29.7	26.3	
DT23	0.8211	0.7782	0.7813	0.8038	0.7961	38.3	30.5	
DT24	0.9247	0.8887	0.8696	0.9050	0.8970	33.8	30.4	
DT25	0.8893	0.8248	0.8083	0.8524	0.8437	**53.6**	**45.3**	
DT26	0.8567	0.8169	0.7674	0.8101	0.8128	**42.0**	34.1	
DT27	0.9468	0.8724	0.8797	0.9243	0.9058	**78.5**	**71.1**	
DT28	0.9134	0.8777	0.8312	0.8887	0.8778	**63.2**	**55.5**	

DT29	0.9247	0.8887	0.8696	0.9050	0.8970	**72.1**	**64.7**	
DT30	0.9247	0.8887	0.8696	0.9050	0.8970	**49.4**	**44.3**	
DT31	0.9247	0.8887	0.8696	0.9050	0.8970	**71.7**	**64.4**	
DT32	0.9468	0.8724	0.8797	0.9243	0.9058	32.4	29.3	
DT33	0.9247	0.8887	0.8696	0.9050	0.8970	32.7	29.4	
DT34	0.9247	0.8887	0.8696	0.9050	0.8970	**51.5**	**46.2**	
DT35	0.9247	0.8887	0.8696	0.9050	0.8970	**40.7**	36.5	
DT36	0.9484	0.9388	0.9381	0.9319	0.9393	**56.9**	**53.5**	
DT37	0.9708	0.9510	0.9030	0.9504	0.9438	**41.6**	39.3	
DT38	0.9247	0.8887	0.8696	0.9050	0.8970	**48.5**	**43.5**	
DT39	0.8893	0.8248	0.8083	0.8524	0.8437	**51.1**	**43.1**	
DT40	0.9247	0.8887	0.8696	0.9050	0.8970	**51.9**	**46.6**	
DT41	0.9247	0.8887	0.8696	0.9050	0.8970	**44.1**	39.5	
DT42	0.9293	0.8512	0.9215	0.9468	0.9122	**48.2**	**44.0**	
DT43	0.9247	0.8887	0.8696	0.9050	0.8970	**41.1**	36.9	
DT44	0.9247	0.8887	0.8696	0.9050	0.8970	34.4	30.8	
DT45	0.9575	0.9470	0.9498	0.9783	0.9581	35.1	33.6	
DT46	0.9987	0.9633	0.8935	0.9678	0.9558	38.6	36.9	
DT47	0.8567	0.8169	0.7674	0.8101	0.8128	**46.2**	37.5	
DT48	0.9247	0.8887	0.8696	0.9050	0.8970	**48.6**	**43.6**	
DT49	0.9484	0.9388	0.9381	0.9319	0.9393	34.7	32.6	
DT50	0.9019	0.8919	0.8419	0.8771	0.8782	**45.2**	39.7	
DT51	0.9247	0.8887	0.8696	0.9050	0.8970	38.9	34.9	
VX1	1.0393	0.9440	0.9544	0.9805	0.9796	37.6	36.8	
VX2	0.9484	0.9388	0.9381	0.9319	0.9393	30.7	28.9	
VX3	0.9484	0.9388	0.9381	0.9319	0.9393	28.0	26.3	
VX4	0.9088	0.8626	0.8660	0.8710	0.8771	**45.4**	39.8	
VX5	0.9484	0.9388	0.9381	0.9319	0.9393	39.8	37.4	
VX6	0.9484	0.9388	0.9381	0.9319	0.9393	35.6	33.4	
VX7	0.9484	0.9388	0.9381	0.9319	0.9393	28.8	27.0	
VX8	0.9484	0.9388	0.9381	0.9319	0.9393	34.3	32.2	
VX9	0.9484	0.9388	0.9381	0.9319	0.9393	**45.9**	**43.1**	
VX10	0.9255	0.9537	0.9168	0.9035	0.9249	34.0	31.4	
VX11	0.9484	0.9388	0.9381	0.9319	0.9393	31.3	29.4	
VX12	0.9088	0.8626	0.8660	0.8710	0.8771	28.4	24.9	
VX13	0.9319	0.9315	0.9964	0.9550	0.9537	**40.5**	38.6	

SR1	0.9771	0.9154	0.9217	0.9434	0.9394	37.5	35.2	
SR2	0.9484	0.9388	0.9381	0.9319	0.9393	35.0	32.8	
SR3	0.9484	0.9388	0.9381	0.9319	0.9393	**51.9**	**48.8**	
SR4	0.9484	0.9388	0.9381	0.9319	0.9393	**48.5**	**45.5**	
SR5	0.9484	0.9388	0.9381	0.9319	0.9393	**41.7**	39.2	
SR6	0.9608	0.9451	0.9517	0.9351	0.9482	39.6	37.6	
SR7	0.9484	0.9388	0.9381	0.9319	0.9393	31.4	29.5	
SR8	0.9608	0.9451	0.9517	0.9351	0.9482	32.4	30.7	
SR10	0.9484	0.9388	0.9381	0.9319	0.9393	37.8	35.5	
SR11	0.9824	0.9286	0.9712	0.9647	0.9617	30.2	29.0	
SR12	0.9484	0.9388	0.9381	0.9319	0.9393	31.9	30.0	
SR13	0.9824	0.9286	0.9712	0.9647	0.9617	29.5	28.4	
SR14	0.9484	0.9388	0.9381	0.9319	0.9393	26.9	25.2	
SR15	0.9088	0.8626	0.8660	0.8710	0.8771	**40.7**	35.7	
SR16	0.8725	0.8612	0.8252	0.8219	0.8452	34.5	29.1	
SR17	0.9484	0.9388	0.9381	0.9319	0.9393	32.6	30.7	
SR18	0.9484	0.9388	0.9381	0.9319	0.9393	34.7	32.6	
SR19	0.9484	0.9388	0.9381	0.9319	0.9393	**41.5**	39.0	
SR20	1.0816	1.0549	1.0698	1.0689	1.0688	**52.9**	**56.5**	
SR21	0.9608	0.9451	0.9517	0.9351	0.9482	38.2	36.2	
LTN1	0.9830	1.1438	1.1292	1.0437	1.0749	30.6	32.8	
LTN2	0.9002	0.9491	0.9847	0.9248	0.9397	**45.6**	**42.8**	
LTN3	0.9319	0.9315	0.9964	0.9550	0.9537	39.3	37.5	
LTN4	0.9002	0.9491	0.9847	0.9248	0.9397	32.3	30.3	
LTN5	0.8293	0.8186	0.8677	0.8176	0.8333	33.2	27.7	
LTN7	0.9002	0.9491	0.9847	0.9248	0.9397	33.8	31.8	
LTN8	0.9319	0.9315	0.9964	0.9550	0.9537	37.1	35.4	
LTN9	0.9319	0.9315	0.9964	0.9550	0.9537	26.8	25.5	
LTN10	0.8824	0.8315	0.9096	0.8813	0.8762	**48.0**	**42.0**	
LTN11	0.9170	0.9185	0.9520	0.9343	0.9304	**58.2**	**54.2**	
SCOOT	0.9520	0.9675	0.8753	0.9257	0.9301	**46.5**	**43.2**	
AS1	0.8710	0.8073	0.7611	0.8312	0.8177	30.7	25.1	
AS2	0.9053	0.7937	0.8047	0.8595	0.8408	33.6	28.3	
JP1	0.8767	0.7482	0.8298	0.8670	0.8304	25.9	21.5	
JP2	0.9053	0.7937	0.8047	0.8595	0.8408	33.5	28.2	
LI	0.9053	0.7937	0.8047	0.8595	0.8408	30.4	25.6	

LO	0.9053	0.7937	0.8047	0.8595	0.8408	29.9	25.2	
RS1	0.8211	0.7782	0.7813	0.8038	0.7961	30.2	24.0	
STA1	0.9052	0.7728	0.9488	0.9093	0.8840	**44.8**	39.6	
STA2	0.9332	0.8806	0.8310	0.8908	0.8839	**51.0**	**45.0**	
SS1	0.8710	0.8073	0.7611	0.8312	0.8177	34.8	28.5	
SP1	0.7772	0.7456	0.7032	0.7657	0.7479	35.2	26.4	
SP2	0.8278	0.7953	0.7059	0.7811	0.7775	30.1	23.4	
SH1	0.9498	0.9495	0.9943	0.9628	0.9641	28.8	27.8	
VP1	0.8211	0.7782	0.7813	0.8038	0.7961	32.8	26.1	
VP2	0.9332	0.8806	0.8310	0.8908	0.8839	30.3	26.7	
WP1	0.8845	0.7695	0.7444	0.8324	0.8077	38.6	31.2	
WP2	0.8567	0.8169	0.7674	0.8101	0.8128	37.2	30.2	

Notes

Concentrations are presented as µg m^{-3}.

Exceedances of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**.

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold and underlined**.

Fall off with distance calculation

Distance correction has been completed for the following sites, due to the NO2 Annual Mean Concentration (bias adjusted and annualised) being greater than 36 µg m-3 and receptors not being located at a point of relevant exposure. This is to estimate the concentration at the nearest receptor.

The Diffusion Tube Data Processing Tool v1 developed by Defra has been used to perform the calculations.

Streatham Green LB6 has been used as the background site.

Continuous monitoring sites have also been adjusted to a point of relative public exposure. Please see Table E.

Table O. NO_2 Fall off With Distance Calculations

Site ID	Distance (m)		NO_2 Annual Mean Concentration (µg/m^3)			Comment
	Monitoring Site to Kerb	Receptor to Kerb	Bias Adjusted and Annualised	Background	Predicted at Receptor	
DT1, DT2, DT3	0.5	1.0	56.9	25.8	**53.1**	*Predicted concentration at Receptor above AQS objective.*
DT9	0.5	1.0	36.4	25.8	35.1	
DT12	0.5	0.7	36.0	25.8	35.4	
DT13	0.5	0.8	36.4	25.8	35.5	
DT14	0.5	0.8	37.4	25.8	*36.4*	*Predicted concentration at Receptor within 10% the AQS objective.*
DT15	0.5	1.0	39.5	25.8	*37.8*	*Predicted concentration at Receptor within 10% the AQS objective.*
DT19	0.5	0.8	38.8	25.8	*37.7*	*Predicted concentration at Receptor within 10% the AQS objective.*
DT25	0.5	0.8	36.7	25.8	35.8	
DT27	0.5	1.0	57.6	25.8	**53.7**	*Predicted concentration at Receptor above AQS objective.*
DT28	0.5	1.0	44.9	25.8	**42.6**	*Predicted concentration at Receptor above AQS objective.*
DT29	0.5	1.0	52.4	25.8	**49.1**	*Predicted concentration at Receptor above AQS objective.*
DT31	0.5	0.8	52.1	25.8	**49.9**	*Predicted concentration at Receptor above AQS objective.*
DT34	0.5	0.8	37.4	25.8	*36.4*	*Predicted concentration at Receptor within 10% the AQS objective.*
DT36	0.5	1.0	43.3	25.8	**41.2**	*Predicted concentration at Receptor above AQS objective.*
DT40	0.5	1.0	37.7	25.8	*36.3*	*Predicted concentration at Receptor within 10% the AQS objective.*
SR3	0.5	0.8	39.5	25.8	*38.4*	*Predicted concentration at Receptor within 10% the AQS objective.*
SR4	0.5	1.0	36.9	25.8	35.5	
SR20	0.5	0.8	45.8	25.8	**44.1**	*Predicted concentration at Receptor above AQS objective.*
LTN11	0.5	0.8	43.9	25.8	**42.4**	*Predicted concentration at Receptor above AQS objective.*
STA2	0.5	1.0	36.5	25.8	35.2	

Notes

Concentrations are presented as µg m^{-3}.

Exceedances of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**.

NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold and underlined**.

Appendix B Full Monthly Diffusion Tube Results for 2020

Due to covid-19 the Climate Change and Sustainability Team was unable to change the diffusion tubes for a number of months in 2020 (March, April, May, July, August 2020). This, together with instances of missing tubes, resulted in low data capture. All tubes had to be annualised due to a capture rate of less than 75%.

We used the Diffusion Tube Data Processing Tool v1.0 produced by Defra to annualise, bias adjust, and distance correct the data. In accordance with Technical Guidance LLAQM TG.19, low or high concentration, as well as data from tubes contaminated during the analysis, have been discarded.

Two diffusion tubes “SR9” and “JP3” have a data capture rate of less than 33%. We have decided to include the monitoring results from those tubes in Table P, however the data could not be annualised nor bias-adjusted or distance corrected.

The following diffusion tubes were installed in February 2020: VX1, VX2, VX3, VX4, VX5, VX6, VX7, VX8, VX9, VX10, VX11, VX12, VX13, SR1, SR2, SR3, SR4, SR5, SR6, SR7, SR8, SR9, SR10, SR11, SR12, SR13, SR14, SR15, SR16, SR17, SR18, SR19, SR20, SR21.

The following diffusion tubes were installed in June 2020: LTN1, LTN2, LTN3, LTN4, LTN5, LTN7, LTN8, LTN9, LTN10, LTN11.

The following tubes were installed in 2019 to monitor individual schools’ exposure to NO2 and support the delivery of local air quality measures. This is the first year we report the data from those tubes: AS1, AS2, JP1, JP2, JP3, LI, LO, RS1, STA1, STA2, SS1, SP1, SP2, SH1, VP1, VP2, WP1, WP2.

Table P. NO_2 Diffusion Tube Results

Site ID	Data Capture for Monitoring Period (%)[a]	Data Capture (%) [b]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Raw Annual Mean (µg/m3) [c]	Bias Adjusted and Annualised Annual Mean (µg/m3) [c]	Distance Corrected Annual Mean (µg/m3) [c]
DT1, DT2, DT3		48.08%	**82.4**	**72.3**	-	-	-	**73.7**	-	-	**77.6**	-	**86.8**	-	**77.5**	**56.9**	-
DT4		50.00%	**43.6**	**42.0**	-	-	-	21.8	-	-	-	35.5	39.4	35.9	36.4	25.9	-
DT5		57.69%	**57.4**	**47.9**	-	-	-	34.2	-	-	**43.5**	**49.5**	**54.3**	**42.2**	**47.0**	34.1	-
DT6		57.69%	**43.6**	36.5	-	-	-	21.1	-	-	32.4	35.6	38.9	34.0	34.6	25.1	-
DT7		48.08%	**47.3**	37.4	-	-	-	34.5	-	-	38.9	-	**48.0**	39.9	**41.0**	29.2	-
DT8		57.69%	**50.2**	**44.1**	-	-	-	39.4	-	-	**41.5**	37.3	**49.0**	**40.8**	**43.2**	31.4	-
DT9		42.31%	-	**50.4**	-	-	-	-	-	-	**48.8**	**53.8**	**55.8**	**47.2**	**51.2**	36.4	35.1
DT10		57.69%	38.1	31.2	-	-	-	26.5	-	-	29.7	33.0	**40.5**	37.3	33.7	24.5	-
DT11		57.69%	**48.1**	36.8	-	-	-	37.9	-	-	**43.1**	**40.1**	**50.0**	**44.8**	**43.0**	31.2	-
DT12		50.00%	**57.9**	**53.0**	-	-	-	**40.2**	-	-	-	**48.2**	**54.9**	**49.7**	**50.7**	36.0	35.4
DT13		50.00%	**49.8**	**45.9**	-	-	-	**41.8**	-	-	**52.2**	**47.9**	-	**48.3**	**47.7**	36.4	35.5
DT14		57.69%	**56.8**	**52.2**	-	-	-	39.5	-	-	**54.7**	**54.8**	**53.4**	**48.5**	**51.4**	37.4	36.4
DT15		57.69%	**60.9**	**62.9**	-	-	-	**44.4**	-	-	**60.9**	**51.9**	**55.3**	**44.2**	**54.4**	39.5	37.8
DT16		40.38%	**41.9**	36.0	-	-	-	35.3	-	-	**45.3**	**41.0**	-	-	39.9	31.3	-
DT17		57.69%	**57.6**	**45.1**	-	-	-	**40.9**	-	-	**55.2**	**40.9**	**51.8**	**47.7**	**48.4**	35.2	-
DT18		57.69%	**48.6**	**54.1**	-	-	-	**48.5**	-	-	32.1	33.4	**49.6**	32.9	**42.7**	31.1	-
DT19		40.38%	**61.3**	**44.3**	-	-	-	-	-	-	**66.3**	-	**69.0**	**53.9**	**59.0**	38.8	37.7
DT20		48.08%	**45.7**	36.2	-	-	-	29.8	-	-	**45.2**	**42.7**	**51.0**	-	**41.8**	30.6	-
DT21		38.46%	34.5	26.8	-	-	-	23.2	-	-	31.1	-	**40.2**	-	31.1	22.3	-

DT22		38.46%	35.3	28.5	-	-	-	19.8	-	-	28.5	-	36.6	-	29.7	21.3	-
DT23		32.69%	38.1	-	-	-	-	-	-	-	32.6	-	**44.6**	37.8	38.3	24.7	-
DT24		57.69%	37.2	31.4	-	-	-	30.5	-	-	34.0	16.2	**45.3**	**42.2**	33.8	24.6	-
DT25		50.00%	**54.6**	**45.4**	-	-	-	-	-	-	**65.3**	**47.0**	**62.0**	**47.5**	**53.6**	36.7	35.8
DT26		40.38%	**41.6**	34.4	-	-	-	-	-	-	34.5	-	**50.4**	**49.0**	**42.0**	27.6	-
DT27		48.08%	**67.5**	**66.1**	-	-	-	**71.4**	-	-	**97.3**	**90.2**	**78.5**	-	**78.5**	**57.6**	**53.7**
DT28		50.00%	**73.5**	**62.5**	-	-	-	**55.1**	-	-	-	**56.7**	**66.2**	**65.2**	**63.2**	**44.9**	**42.6**
DT29		57.69%	**78.8**	**63.6**	-	-	-	**72.7**	-	-	**83.4**	**59.9**	**75.8**	**70.4**	**72.1**	**52.4**	**49.1**
DT30		57.69%	**58.0**	**52.1**	-	-	-	**52.8**	-	-	**64.3**	**55.4**	**62.5**	0.5	**49.4**	35.9	-
DT31		57.69%	**70.1**	**58.9**	-	-	-	**68.4**	-	-	**85.1**	**71.1**	**80.0**	**68.7**	**71.7**	**52.1**	**49.9**
DT32		48.08%	**43.0**	29.6	-	-	-	21.8	-	-	30.8	28.3	**40.8**	-	32.4	23.8	-
DT33		57.69%	35.4	33.0	-	-	-	22.7	-	-	30.9	29.3	**42.1**	35.8	32.7	23.8	-
DT34		57.69%	**54.4**	**49.3**	-	-	-	**47.9**	-	-	**62.0**	**44.7**	**55.5**	**46.6**	**51.5**	37.4	36.4
DT35		57.69%	**41.3**	37.1	-	-	-	36.6	-	-	**47.7**	34.7	**50.9**	36.6	**40.7**	29.6	-
DT36		50.00%		**88.3**	-	-	-	**43.5**	-	-	**56.0**	**50.6**	**55.1**	**48.0**	**56.9**	**43.3**	**41.2**
DT37		50.00%	**43.8**	34.3	-	-	-	35.0	-	-	39.0	34.6	-	**63.0**	**41.6**	31.8	-
DT38		57.69%	**55.5**	**44.9**	-	-	-	**44.0**	-	-	**51.4**	**45.0**	**54.7**	**43.7**	**48.5**	35.2	-
DT39		50.00%	**53.0**	**53.5**	-	-	-	-	-	-	**47.0**	**51.0**	**54.5**	**47.4**	**51.1**	34.9	-
DT40		57.69%	**60.2**	**58.4**	-	-	-	**50.0**	-	-	**52.3**	**45.7**	**55.7**	**41.3**	**51.9**	37.7	36.3
DT41		57.69%	**44.0**	**43.5**	-	-	-	38.3	-	-	38.6	**44.3**	**56.1**	**43.5**	**44.1**	32.0	-
DT42		40.38%	**52.4**	-	-	-	-	**44.7**	-	-	**46.0**	**46.1**	**51.9**	-	**48.2**	35.6	-
DT43		57.69%	**52.8**	**47.3**	-	-	-	36.1	-	-	35.6	31.6	**46.2**	38.3	**41.1**	29.9	-
DT44		57.69%	39.2	35.2	-	-	-	27.6	-	-	33.0	33.3	**40.9**	31.3	34.4	25.0	-
DT45		42.31%	34.6	-	-	-	-	23.4	-	-	27.8	25.9	-	**63.6**	35.1	27.2	-
DT46		30.77%	**48.1**	**42.3**	-	-	-	31.4	-	-	32.6	-	-	-	38.6	29.9	-
DT47		40.38%	**47.3**	**42.5**	-	-	-	-	-	-	**46.8**	-	**49.4**	**44.8**	**46.2**	30.4	-
DT48		57.69%	**57.1**	**55.9**	-	-	-	39.3	-	-	**48.5**	**48.9**	**49.8**	**40.7**	**48.6**	35.3	-

DT49		50.00%	-	**66.0**	-	-	-	21.5	-	-	28.3	28.5	33.7	30.5	34.7	26.4	-
DT50		48.08%	**54.9**	**48.0**	-	-	-	38.0	-	-	**49.8**	-	**44.2**	36.5	**45.2**	32.2	-
DT51		57.69%	**50.3**	38.4	-	-	-	33.8	-	-	**40.1**	34.9	37.6	37.0	38.9	28.2	-
VX1	27.27%	25.00%	NA	35.4	-	-	-	-	-	-	**40.2**	37.2	-	-	37.6	29.8	-
VX2	54.55%	50.00%	NA	32.9	-	-	-	21.2	-	-	30.0	29.7	38.5	32.1	30.7	23.4	-
VX3	54.55%	50.00%	NA	30.4	-	-	-	19.2	-	-	26.4	26.2	35.9	29.6	28.0	21.3	-
VX4	45.45%	42.31%	NA	**41.4**	-	-	-	-	-	-	**49.9**	**44.2**	**54.8**	36.7	**45.4**	32.3	-
VX5	54.55%	50.00%	NA	**45.8**	-	-	-	28.7	-	-	33.1	**42.3**	**48.5**	**40.1**	39.8	30.3	-
VX6	54.55%	50.00%	NA	37.4	-	-	-	21.0	-	-	**43.6**	34.3	**43.4**	33.9	35.6	27.1	-
VX7	54.55%	50.00%	NA	32.0	-	-	-	20.6	-	-	27.4	25.4	35.7	31.5	28.8	21.9	-
VX8	54.55%	50.00%	NA	36.4	-	-	-	24.4	-	-	34.4	31.8	**42.9**	35.7	34.3	26.1	-
VX9	54.55%	50.00%	NA	**46.8**	-	-	-	30.7	-	-	**48.8**	**44.4**	**62.5**	**42.1**	**45.9**	34.9	-
VX10	45.45%	40.38%	NA	36.4	-	-	-	20.4	-	-	33.7	-	**43.2**	36.2	34.0	25.5	-
VX11	54.55%	50.00%	NA	31.4	-	-	-	23.6	-	-	28.0	29.9	**41.4**	33.5	31.3	23.8	-
VX12	45.45%	42.31%	NA	28.1	-	-	-	-	-	-	27.8	23.4	35.0	27.8	28.4	20.2	-
VX13	45.45%	42.31%	NA	-	-	-	-	33.3	-	-	**44.5**	**42.0**	**47.2**	35.3	**40.5**	31.3	-
SR1	36.36%	32.69%	NA	39.9	-	-	-	26.9	-	-	-	37.8	**45.2**	-	37.5	28.5	-
SR2	54.55%	50.00%	NA	**42.0**	-	-	-	24.5	-	-	30.8	34.2	**43.2**	35.0	35.0	26.6	-
SR3	54.55%	50.00%	NA	**67.6**	-	-	-	**42.7**	-	-	**52.7**	**50.2**	**55.8**	**42.3**	**51.9**	39.5	38.4
SR4	54.55%	50.00%	NA	**63.9**	-	-	-	34.8	-	-	**52.0**	**42.8**	**51.5**	**45.7**	**48.5**	36.9	35.5
SR5	54.55%	50.00%	NA	**44.2**	-	-	-	29.1	-	-	39.7	**52.8**	**46.8**	37.7	**41.7**	31.7	-
SR6	36.36%	30.77%	NA	**42.4**	-	-	-	28.1	-	-	37.4	-	**50.5**	-	39.6	30.4	-
SR7	54.55%	50.00%	NA	35.2	-	-	-	19.1	-	-	31.0	30.0	39.5	33.5	31.4	23.9	-
SR8	36.36%	30.77%	NA	36.8	-	-	-	21.5	-	-	31.9	-	39.4	-	32.4	24.9	-
SR9	18.18%	17.31%	NA	-	-	-	-	-	-	-	29.7	-	-	34.8	-	-	-
SR10	54.55%	50.00%	NA	**46.6**	-	-	-	23.3	-	-	34.9	38.2	**45.0**	38.6	37.8	28.7	-
SR11	45.45%	40.38%	NA	34.3	-	-	-	20.2	-	-	26.7	30.8	38.9	-	30.2	23.5	-

SR12	54.55%	50.00%	NA	35.4	-	-	-	20.6	-	-	29.4	28.6	**42.0**	35.6	31.9	24.3	-
SR13	45.45%	40.38%	NA	33.2	-	-	-	19.0	-	-	27.8	28.4	39.1	-	29.5	23.0	-
SR14	54.55%	50.00%	NA	30.5	-	-	-	17.0	-	-	25.6	25.6	35.6	26.9	26.9	20.4	-
SR15	54.55%	42.31%	NA	**44.2**	-	-	-	-	-	-	36.0	36.7	**46.6**	**40.1**	**40.7**	28.9	-
SR16	36.36%	32.69%	NA	38.7	-	-	-	-	-	-	26.7	-	38.8	33.7	34.5	23.6	-
SR17	54.55%	50.00%	NA	38.8	-	-	-	20.3	-	-	29.7	31.8	**42.3**	33.0	32.6	24.8	-
SR18	54.55%	50.00%	NA	**41.0**	-	-	-	21.8	-	-	36.0	35.2	**40.1**	34.2	34.7	26.4	-
SR19	54.55%	50.00%	NA	**42.5**	-	-	-	29.8	-	-	**44.1**	40.0	**50.3**	**42.4**	**41.5**	31.6	-
SR20	36.36%	32.69%	NA	**65.6**	-	-	-	**43.7**	-	-	**49.1**	**53.3**	-	-	**52.9**	**45.8**	**44.1**
SR21	36.36%	30.77%	NA	**43.5**	-	-	-	34.6	-	-	33.6	-	**41.1**	-	38.2	29.3	-
LTN1	27.27%	25.00%	NA	NA	NA	NA	NA	29.3	-	-	30.3	-	-	32.1	30.6	26.6	-
LTN2	36.36%	32.69%	NA	NA	NA	NA	NA	35.3	-	-	**44.6**	-	**52.5**	**49.8**	**45.6**	34.7	-
LTN3	45.45%	42.31%	NA	NA	NA	NA	NA	34.1	-	-	38.9	35.6	**47.8**	**40.2**	39.3	30.4	-
LTN4	36.36%	32.69%	NA	NA	NA	NA	NA	24.5	-	-	32.2	-	39.2	33.4	32.3	24.6	-
LTN5	27.27%	25.00%	NA	NA	NA	NA	NA	-	-	-	28.2	-	38.2	33.3	33.2	22.4	-
LTN7	36.36%	32.69%	NA	NA	NA	NA	NA	29.5	-	-	32.9	-	38.3	34.7	33.8	25.8	-
LTN8	45.45%	42.31%	NA	NA	NA	NA	NA	21.6	-	-	**65.5**	27.1	38.5	32.7	37.1	28.7	-
LTN9	45.45%	42.31%	NA	NA	NA	NA	NA	18.1	-	-	23.2	22.3	**41.2**	29.1	26.8	20.7	-
LTN10	36.36%	34.62%	NA	NA	NA	NA	NA	-	-	-	**94.4**	28.8	34.8	33.8	**48.0**	34.0	-
LTN11	36.36%	34.62%	NA	NA	NA	NA	NA	34.3	-	-	-	**69.0**	**88.3**	**41.2**	**58.2**	**43.9**	**42.4**
SCOOT		40.38%	**55.5**	**43.8**	-	-	-	38.4	-	-	**48.8**	-	-	**45.9**	**46.5**	35.0	-
AS1		42.31%	36.5	30.3	-	-	-	-	-	-	-	23.5	33.5	29.6	30.7	20.3	-
AS2		40.38%	36.2	27.9	-	-	-	-	-	-	25.5	**42.2**	36.2	-	33.6	22.9	-
JP1		32.69%	30.3	-	-	-	-	-	-	-	21.8	20.0	31.4	-	25.9	17.4	-
JP2		40.38%	**40.9**	31.9	-	-	-	-	-	-	30.2	29.4	35.4	-	33.5	22.8	-
JP3		15.38%	31.8	-	-	-	-	-	-	-	22.2	-	-	-	-	-	-
LI		40.38%	38.3	27.9	-	-	-	-	-	-	24.7	27.7	33.5	-	30.4	20.7	-

LO		40.38%	36.2	30.8	-	-	-	-	-	-	25.1	21.9	35.8	-	29.9	20.4	-
RS1		32.69%	34.3	-	-	-	-	-	-	-	23.5	-	34.6	28.3	30.2	19.5	-
STA1		25.00%	-	-	-	-	-	-	-	-	**45.0**	**40.4**	**49.1**	-	**44.8**	32.1	-
STA2		42.31%	**42.7**	**40.7**	-	-	-	-	-	-	**48.0**	**41.8**	-	**81.7**	**51.0**	36.5	35.2
SS1		42.31%	38.8	32.4	-	-	-	-	-	-	-	27.8	**40.7**	34.3	34.8	23.0	-
SP1		25.00%	32.0	-	-	-	-	-	-	-	-	-	39.1	34.7	35.2	21.3	-
SP2		32.69%	32.4	25.1	-	-	-	-	-	-	-	-	35.9	27.3	30.1	19.0	-
SH1		26.92%	-	-	-	-	-	-	-	-	23.8	23.5	-	39.3	28.8	22.5	-
VP1		32.69%	38.3	-	-	-	-	-	-	-	25.6	-	36.4	30.8	32.8	21.1	-
VP2		42.31%	37.6	31.6	-	-	-	-	-	-	23.2	27.5	-	31.3	30.3	21.7	-
WP1		32.69%	**42.3**	36.5	-	-	-	-	-	-	-	30.6	**45.0**	-	38.6	25.2	-
WP2		40.38%	**44.7**	30.7	-	-	-	-	-	-	34.2	-	36.7	39.7	37.2	24.5	-

Notes

Concentrations are presented as µg m^{-3}.

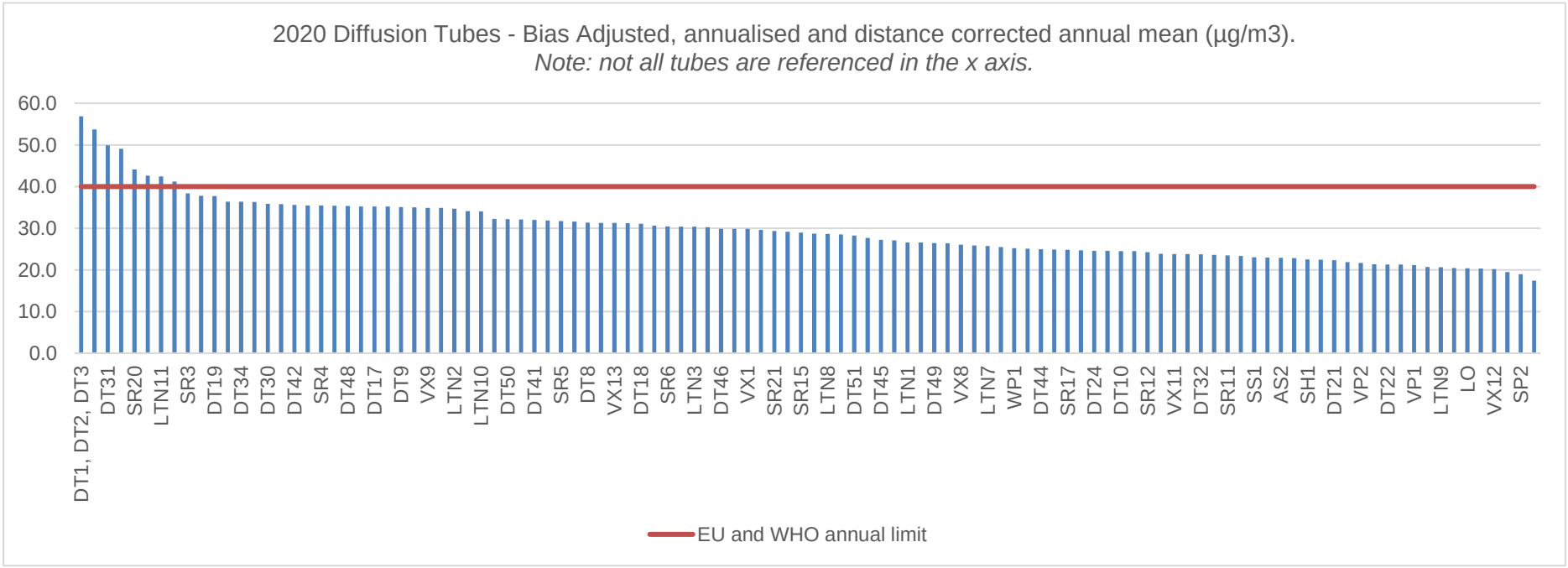
(a) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

(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) Exceedances of the NO_2 annual mean AQO of 40 µg m^{-3} are shown in **bold**. NO_2 annual means in excess of 60 µg m^{-3}, indicating a potential exceedance of the NO_2 hourly mean AQS objective are shown in **bold and underlined**. All means have been "annualised" in accordance with LLAQM Technical Guidance if valid data capture for the calendar year is less than 75% and greater than 33%. Two diffusion tubes "JP3" and "SR9" have less than 33% data capture. We have included those in the table, however they could not be annualised, distance corrected and bias adjusted due to too low data capture rate.

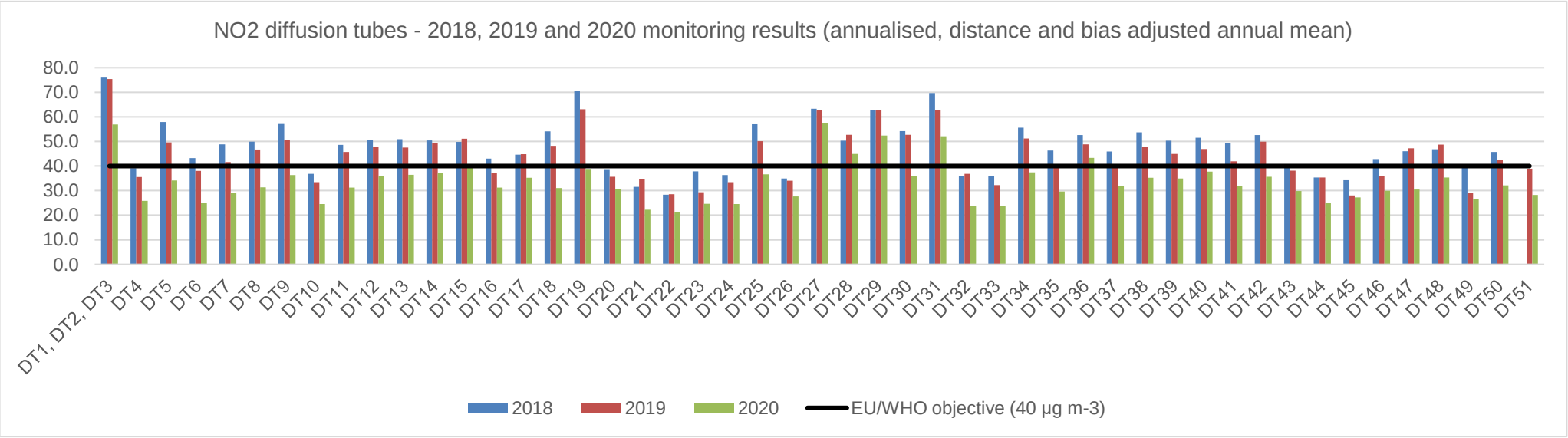
In 2020, 8 diffusion tubes exceeded the EU/WHO NO2 annual mean objective of 40 µg m-3. These were:

- DT1, 2, 3 (Brixton Road) 56.9 µg m-3
- DT27 (Streatham Hill Station) 53.7 µg m-3
- DT31 (Streatham bus station) 49.9 µg m-3
- DT29 (Streatham High Road/Becmead Avenue) 49.1 µg m-3
- SR20 (Waterloo bridge) 44.1 µg m-3
- DT28 (Streatham High Road/Leigham Avenue) 42.6 µg m-3
- LTN11 (Streatham - Leigham Court Road/Culverhouse Gardens) 42.4 µg m-3
- DT36 (South Circular - outside Poynders Court) 41.2 µg m-3



All tubes registered NO2 concentrations below 60 µg m-3 (a threshold which indicates a potential exceedance of the NO2 hourly mean objective). This is in line with the values registered by our automatic monitoring sites. Most of the tubes that exceeded the NO2 annual mean objective of 40 µg m-3 were in the area of Streatham.

For those diffusion tubes for which historic data (2018 and 2019) is available (DT1 to DT51), we have compared historic and 2020 data and produced the graph below. For consistency and to ensure the data was comparable, we have recalculated the 2018 and 2019 concentrations using the Diffusion Tube Data Processing Tool v1. **Consequently, the diffusion tube annual mean values for 2018 and 2019 which is presented in this Annual Status Report (Table E) supersede the annual means presented in previous Annual Status Reports**. All diffusion tubes registered a decrease in NO2 concentrations since 2018. Significant decreases were registered in 2020 compared to both 2018 and 2019 levels. We recognise that restrictions on activities following covid-19 might have had an impact on the concentrations measured in 2020. We also recognise that easing of lockdown in late 2020 might impact on future concentrations.



Site ID	2018	2019	2020
DT1, DT2, DT3	**76.0**	**75.4**	**56.9**
DT4	39.1	35.5	25.9
DT5	**57.9**	**49.6**	34.1
DT6	**43.2**	38.0	25.1
DT7	**48.8**	**41.6**	29.2
DT8	**49.9**	**46.7**	31.4
DT9	**57.1**	**50.7**	36.4
DT10	36.8	33.4	24.5
DT11	**48.6**	**45.7**	31.2
DT12	**50.6**	**47.8**	36.0
DT13	**50.9**	**47.5**	36.4
DT14	**50.4**	**49.3**	37.4
DT15	**49.8**	**51.1**	39.5
DT16	**43.0**	37.3	31.3
DT17	**44.6**	**44.8**	35.2
DT18	**54.1**	**48.2**	31.1
DT19	**70.6**	**63.1**	38.8
DT20	38.7	35.7	30.6
DT21	31.6	34.9	22.3
DT22	28.4	28.5	21.3
DT23	37.8	29.4	24.7
DT24	36.3	33.4	24.6
DT25	**57.0**	**50.1**	36.7
DT26	35.0	34.0	27.6
DT27	**63.3**	**62.9**	**57.6**
DT28	**50.3**	**52.7**	**44.9**

Site ID	2018	2019	2020
DT29	**62.9**	**62.7**	**52.4**
DT30	**54.2**	**52.7**	35.9
DT31	**69.7**	**62.7**	**52.1**
DT32	35.8	36.8	23.8
DT33	36.0	32.2	23.8
DT34	**55.6**	**51.2**	37.4
DT35	**46.3**	**40.7**	29.6
DT36	**52.6**	**48.8**	**43.3**
DT37	**45.9**	39.4	31.8
DT38	**53.7**	**47.9**	35.2
DT39	**50.3**	**44.9**	34.9
DT40	**51.5**	**46.9**	37.7
DT41	**49.4**	**41.9**	32.0
DT42	**52.6**	**49.9**	35.6
DT43	39.7	38.1	29.9
DT44	35.3	35.4	25.0
DT45	34.2	28.0	27.2
DT46	**42.8**	36.0	29.9
DT47	**46.1**	**47.2**	30.4
DT48	**46.8**	**48.7**	35.3
DT49	39.6	29.0	26.4
DT50	**45.7**	**42.6**	32.2
DT51		38.9	28.2

Appendix C COVID-19 Impact Matrix

Parameter	No Impact	Small Impact	Medium Impact	Large Impact
Automatic Monitoring – Data Capture (%)	More than 75% data capture	50 to 75% data capture	25 to 50% data capture	Less than 25% data capture.
Automatic Monitoring – QA/QC Regime	Adherence to requirements as defined in LAQM.TG(16)	Routine calibrations taken place frequently but not to normal regime. Audits undertaken alongside service and maintenance programmes	Routine calibrations taken place infrequently and service and maintenance regimes adhered to. No audit achieved	Routine calibrations not undertaken within extended period (e.g. 3 to 4 months). Interruption to service and maintenance regime and no audit achieved
Passive Monitoring – Data Capture (%)	More than 75% data capture	50 to 75% data capture	25 to 50% data capture	Less than 25% data capture
Passive Monitoring – Bias Adjustment Factor	Bias adjustment undertaken as normal	<25% impact on normal number of available bias adjustment colocation studies (2020 vs 2019)	25-50% impact on normal number of available bias adjustment studies (2020 vs 2019)	>50% impact on normal number of available bias adjustment studies (2020 vs 2019) and/or applied bias adjustment factor studies not considered representative of local regime
Passive Monitoring – Adherence to Changeover Dates	Defra diffusion tube exposure calendar was adhered to	Tubes left out for two exposure periods	Tubes left out for three exposure periods	Tubes left out for more than three exposure periods
Passive Monitoring – Storage of Tubes	Tubes stored in accordance with laboratory guidance and analysed promptly.	Tubes stored for longer than normal but adhering to laboratory guidance	Tubes unable to be stored according to be laboratory guidance but analysed prior to expiry date	Tubes stored for so long that they were unable to be analysed prior to expiry date. Data unable to be used
AQAP – Measure Implementation	Unaffected	Short delay (<6 months) in implementation of measures, but most measures have been progressed to a degree	Long delay (>6 months) in implementation of measures, but has been progressed to a degree	No progression in implementation of measures