

London Borough of Camden Air Quality Annual Status Report for
2018
Date of publication: July 2019



This report provides a detailed overview of air quality in the London Borough of Camden during 2018. It has been produced to meet the requirements of the London Local Air Quality Management statutory process¹.

Contact details

Ana Ventura / Tom Parkes
Senior Sustainability Officer (Air Quality)
Supporting Communities
Telephone: 0207 974 3901

CONTENTS

Abbreviations	3
1. Air Quality Monitoring	5
1.1 Locations.....	5
1.2 Comparison of Monitoring Results with AQOs	7
2. Action to Improve Air Quality	13
2.1 Air Quality Action Plan Progress	13
3. Planning Update and Other New Sources of Emissions.....	61
3.1 New or significantly changed industrial or other sources	64
Appendix A Details of Monitoring Site QA/QC	65
A.1 Automatic Monitoring Sites.....	65

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

A.2	Diffusion Tube Quality Assurance / Quality Control	65
A.3	Adjustments to the Ratified Monitoring Data	66
Appendix B	Full Monthly Diffusion Tube Results for 2018	68

Tables

Table A.	Summary of National Air Quality Standards and Objectives	4
Table B.	Details of Automatic Monitoring Sites for 2018	5
Table C.	Details of Non-Automatic Monitoring Sites for 2018.....	5
Table D.	Annual Mean NO ₂ Ratified and Bias-adjusted Monitoring Results (□g m ⁻³) 7	
Table E.	NO ₂ Automatic Monitor Results: Comparison with 1-hour Mean Objective 10	
Table G.	PM ₁₀ Automatic Monitor Results: Comparison with 24-Hour Mean Objective 11	
Table H.	Annual Mean PM _{2.5} Automatic Monitoring Results (□g m ⁻³) (<i>if available, if not this section can be deleted</i>).....	12
Table I.	SO ₂ Automatic Monitor Results: Comparison with Objectives (<i>if available, if not this section can be deleted</i>).....	12
Table J.	Delivery of Air Quality Action Plan Measures.....	13
Table K.	Planning requirements met by planning applications in <i>Borough Name</i> in 2018 61	
Table L.	Short-Term to Long-Term Monitoring Data Adjustment	66
Table M.	NO ₂ Diffusion Tube Results	68

Abbreviations

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

Table A. Summary of National Air Quality Standards and Objectives

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

Note: ¹ by which to be achieved by and maintained thereafter

1. Air Quality Monitoring

1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2018

Site Name	X (m)	Y (m)	Site Type	In AQMA?	Distance from monitoring site to relevant exposure (m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Pollutants monitored	Monitoring technique
London Bloomsbury	530123	182014	Urban Background	Y	40	27	NO ₂ , PM ₁₀ , PM _{2.5} , SO ₂ , O ₃	FDMS, API NO _x , TEOM
Swiss Cottage	526629	184391	Kerbside	Y	7	1.5	NO ₂ , PM ₁₀ , PM _{2.5}	FDMS, AC31 NO _x
Euston Road	529878	182648	Roadside	Y	1	0.5	NO ₂ , PM ₁₀ , PM _{2.5}	API NO _x , FDMS

Table C. Details of Non-Automatic Monitoring Sites for 2018

Site ID	Site Name	X (m)	Y (m)	Site Type	In AQMA?	Distance from monitoring site to relevant exposure (m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Pollutants monitored	Tube co-located with an automatic monitor? (Y/N)
CA4	Euston Road	530110	182795	Roadside	Y	1	5	NO ₂	N
CA6	Wakefield Gardens	530430	182430	Urban Background	Y	18	30	NO ₂	N

CA7	Frogna! Way	526213	185519	Urban Background	Y	6	30	NO ₂	N
CA10	Tavistock Garden	529880	182334	Urban Background	Y	35	25	NO ₂	N
CA11	Tottenham Court Road	529568	181728	Kerbside	Y	4	<1	NO ₂	N
CA15	Swiss Cottage	526633	184392	Kerbside	Y	7	<1	NO ₂	Y
CA16	Kentish Town Road	529013	185102	Roadside	Y	1	1	NO ₂	N
CA17	47 Fitzjohn's Road	526547	185125	Roadside	Y	5	5	NO ₂	N
CA20	Brill Place	529914	183147	Roadside	Y	9	<5	NO ₂	N
CA21	Bloomsbury Street	529962	181620	Roadside	Y	4	<1	NO ₂	N
CA23	Camden Road	529173	184129	Roadside	Y	5	<1	NO ₂	N
CA24	Chetwynd Road	528722	185950	Roadside	Y	2	1	NO ₂	N
CA25	Emmanuel Primary	525325	185255	Roadside	Y	3	1	NO ₂	N
WITT	Wittanhurst Lane	528213	187203	Roadside	Y	3	1.5	NO ₂	N

1.2 Comparison of Monitoring Results with AQOs

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

Table D. Annual Mean NO₂ Ratified and Bias-adjusted Monitoring Results (□g m⁻³)

Site ID	Site type	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean Concentration (µg m ⁻³)						
				2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
LB: London Bloomsbury	Automatic	-	98%	55	44	45*	48	42	38	36
CD1: Swiss Cottage	Automatic	-	95%	<u>70</u>	<u>63</u>	<u>66</u>	<u>61</u>	<u>66</u>	53	54
CD9: Euston Road	Automatic	-	74%	<u>106</u>	<u>106</u>	<u>98</u>	<u>90</u>	<u>88</u>	<u>83</u>	<u>82.34^c</u>
CA4 Euston Road	Diffusion	-	83%	<u>82.05</u>	<u>107.75</u>	<u>89.74</u>	<u>86.76</u>	<u>82.71</u>	<u>92.45</u>	<u>69.2</u>
CA6 Wakefield Gardens	Diffusion	-	75%	39.29	40.32	36.44	35.80	31.31	-	26.7
CA7 Frognal Way	Diffusion	-	92%	28.89	31.95	28.55	27.78	27.91	32.26	22.1

Site ID	Site type	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean Concentration ($\mu\text{g m}^{-3}$)						
				2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
CA10 Tavistock Gardens	Diffusion	-	92%	40.12	49.37	46.50	44.57	39.68	-	35.4
CA11 Tottenham Court Road	Diffusion	-	92%	<u>83.30</u>	<u>88.09</u>	<u>86.75</u>	<u>85.61</u>	<u>83.57</u>	-	<u>65.7</u>
CA15 Swiss Cottage	Diffusion	-	42%	<u>72.66</u>	<u>83.08</u>	<u>74.34</u>	<u>69.28</u>	<u>73.86</u>	-	<u>62.3^c</u>
CA16 Kentish Town Road	Diffusion	-	92%	58.97	<u>65.32</u>	57.83	<u>63.55</u>	58.72	<u>74.92</u>	54.7
CA17 47 Fitzjohn's Road	Diffusion	-	83%	<u>61.20</u>	<u>65.24</u>	<u>60.30</u>	55.80	56.38	-	48.1
CA20 Brill Place	Diffusion	-	92%	50.00	49.37	52.34	48.94	47.53	<u>57.30</u>	41.1
CA21 Bloomsbury Street	Diffusion	-	83%	<u>71.66</u>	<u>76.08</u>	<u>80.82</u>	<u>71.43</u>	<u>72.20</u>	<u>80.67</u>	59.4
CA23 Camden Road	Diffusion	-	92%	<u>67.40</u>	<u>77.85</u>	<u>72.21</u>	<u>63.33</u>	<u>61.74</u>	<u>75.42</u>	55.6

Site ID	Site type	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean Concentration ($\mu\text{g m}^{-3}$)						
				2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
CA24 Chetwynd Rd	Diffusion	-	92%	43.67	47.75	44.76	46.52	41.96	55.02	39.7
CA25 Emmanuel Primary	Diffusion	-	92%	45.94	57.91	48.36	47.70	52.18	55.16	39.8
WITT Wittanhurst Lane	Diffusion	-	83%	-	53.10	48.26	45.03	43.11	48.88	37.4

Notes: Exceedance of the NO₂ annual mean AQO of 40 $\mu\text{g m}^{-3}$ are shown in **bold**.

NO₂ annual means in excess of 60 $\mu\text{g m}^{-3}$, indicating a potential exceedance of the NO₂ hourly mean AQS objective are shown in bold and underlined.

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

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

^c Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% (**CD9: Euston Road and CA15 Swiss Cottage have been annualised in accordance with LLAQM guidance**)

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Number of Hourly Means > 200 µg m ⁻³						
			2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
BLO Bloomsbury	-	98%	1	0	0	0	0	0	0
CD1 Swiss Cottage	-	95%	43	42	14	11	37	1	2
CD9 Euston Road	-	74%	294	404	221	54	39	25	18

Notes: Exceedance of the NO₂ short term AQO of 200 µg m⁻³ over the permitted 18 days per year are shown in **bold**.

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

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

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

Table F. Annual Mean PM₁₀ Automatic Monitoring Results (µg m⁻³)

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean Concentration (µg m ⁻³)						
			2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
BLO Bloomsbury	-	88%	19	18	20	22	20	19	17
CD1 Swiss Cottage	-	96%	23	21	22	20	21	20	21
CD9 Euston Road	-	56%	-	-	29	18	24	20	22.6

Notes: Exceedance of the PM₁₀ annual mean AQO of 40 µg m⁻³ are shown in **bold**.

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

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

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% (**CD9 Euston Road has been annualised in accordance with LLAQM guidance**)

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Number of Daily Means > 50 µg m ⁻³						
			2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
BLO Bloomsbury	-	88%	10	4	11	6	9	6	1
CD1 Swiss Cottage	-	96%	21	8	12	8	7	8	4
CD9 Euston Road	-	56%	-	-	5	5	10	3	2

Notes: Exceedance of the PM₁₀ short term AQO of 50 µg m⁻³ over the permitted 35 days per year or where the 90.4th percentile exceeds 50 µg m⁻³ are shown in **bold**. Where the period of valid data is less than 85% of a full year, the 90.4th percentile is shown in brackets after the number of exceedances.

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

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

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

Table H. Annual Mean PM_{2.5} Automatic Monitoring Results ($\mu\text{g m}^{-3}$)

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean Concentration ($\mu\text{g m}^{-3}$)						
			2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c	2018 ^c
BLO Bloomsbury	-	92%	-	-	-	11	12	13	10
CD1 Swiss Cottage	-	88%	-	-	-	12	15	16	11
CD9 Euston Road	-	54%	-	-	-	17	17	14	15.6

Notes: Exceedance of the PM_{2.5} annual mean AQO of $25 \mu\text{g m}^{-3}$ are shown in **bold**.

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

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

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% (**CD9 Euston Road has been annualised based on LLAQM guidance**)

Table I. SO₂ Automatic Monitor Results: Comparison with Objectives (if available, if not this section can be deleted)

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Number of: ^c		
			15-minute means > $266 \mu\text{g m}^{-3}$	1-hour mean > $350 \mu\text{g m}^{-3}$	24-hour mean > $125 \mu\text{g m}^{-3}$
BLO Bloomsbury		78%	0	0	0

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

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

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

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

2. Action to Improve Air Quality

2.1 Air Quality Action Plan Progress

Table J provides a brief summary of The London Borough of Camden progress against the Air Quality Action Plan, showing progress made this year. New projects which commenced in 2018 are shown at the bottom of the table (*where applicable*).

Table J. Delivery of Air Quality Action Plan Measures

Please note that during the 2018 year, a new Action Plan was being produced for 2019-2022. This new Action Plan was produced in a completely different way as it included sector representation, Camden-wide participation, and involved modelling some of the measurable actions to see how they would help us to achieve our goal of meeting World Health Organization values by 2030. The table below is for the 2016-2018 action plan, however the table may make reference to the new [Camden Clean Air Action Plan](#) as some measures from the 16-18 Plan have been expanded on in the new 19-22 Plan. Camden has started delivering measures from the 19-22 Plan already and will provide a progress report of these actions in the 2019 ASR.

2016-2018 Action Plan

Action	Measure	Progress	Further information
1. The publication on Camden's website of an accessible annual report of Camden's air quality data	Accessible reports produced annually to inform how Camden's air quality relates to EU limit values and WHO thresholds, with	Completed / ongoing	All statutory annual reports are listed on our website . Monitoring data is also published on our Opendata website and on the LAQN website.

	additional information on trends and changes over time.		
2. Data from Camden's automatic monitors will be made available to the public through the London Air Quality Network website	All air quality data to be made freely available and downloadable through the LAQN website	Completed / ongoing	Raw monitoring data is available via the London Air Quality Network site and also on the Opendata site. Both are updated regularly.
3. Data from mobile automatic monitors will be made available to the public through Camden's open data platforms	Data from Camden's 5 Pancras Square monitor to be freely available in real time from Camden's open data platforms	Completed / ongoing Data published on the Opendata site.	
4. To continue to monitor air quality levels on a temporary basis for road based projects and schemes	Use of portable monitors to add air quality levels to the suite of assessment tools used to evaluate the success of	Completed / ongoing	All medium to large transport projects use monitoring equipment prior to works, during works and once projects are completed. This monitoring is to compliment other monitoring measures (traffic, pedestrian, and cycle counts) and does not specifically link measured pollution concentrations to the impact of the projects.

	transport projects and interventions		We are currently monitoring at 150 sites using diffusion tubes and AQ Mesh. This data is for internal purposes and only shared with the public if a query or concern arises.
5. To review annually the monitoring requirements of Camden and update monitoring and/or reporting where necessary	A review of current monitoring to be carried out annually, with a review of potential funding for additional monitoring if deemed necessary. Update this Action Plan as necessary if additional information on sources of pollution is made available (for example the London Atmospheric Emissions Inventory).	Completed / ongoing	This review occurs regularly and has resulted in us adding additional monitoring locations which will be reported in the 2019 ASR. The Shaftsbury monitoring site which stopped operating in 2015 will be relocated in 2019.
6. To update Camden's air quality web	Camden's AQ web pages to be undated to	Completed / ongoing	The Camden website is currently undergoing an update. In its basic form, it currently holds the basic information regarding monitoring,

<p>pages to make them more informative and accessible, and to include details of community projects and other forms of collaborative working where appropriate</p>	<p>provide better and clearer information on air quality. This includes linking to relevant projects and also to external websites which host Camden's up to date monitoring information (LondonAir and Camden open data sites).</p>		<p>annual reports, etc. In its updated form, it will hold the additional information listed in this action.</p>
<p>7. Camden will promote the adoption of fuel saving measures to residents through the Green Camden helpline, Well and Warm service, and other projects.</p>	<p>Key indicators include the number of residents receiving advice and the number of home energy visits. Use of external funding to provide private sector residents with opportunities to fund energy</p>	<p>Ongoing</p>	

	<p>saving installations. Look at ways to improve the dissemination of information about energy efficiency to residents.</p>		
<p>8. Camden will promote the adoption of fuel saving measures to businesses through the Camden Climate Change Alliance.</p>	<p>Energy saving advice is given to all Alliance members, with the number of members being a key indicator of success.</p> <p>Number of businesses becoming air quality champions.</p> <p>Ensure that best practice guidance documents for building owners and tenants are</p>	<p>Completed / ongoing</p>	<p>The Alliance currently has 300 active members</p>

	disseminated to businesses.		
9. Continue to undertake energy efficiency improvement work in the Council's own buildings.	Progress with improvement programmes in council owned corporate properties and domestic units, including work to improve insulation and upgrade boilers to reduce overall fuel consumption and emissions.	Ongoing	Within our own estate and operations we have exceeded we are on target to achieve 40% carbon reductions by 2020 against our 2010 baseline.
10. Ensure that all Part B Installations in the borough maintain the highest standards of air pollution emission control.	Ensure that all Part B Installations meet compliance standards, and where issues are found take action accordingly.	Completed / ongoing	No enforcement action taken in the past financial year with any permitted processes in Camden.
11. Work with businesses to evaluate options for reducing	Work with businesses to trial alternatives to diesel standby generators and	Ongoing	

dependence on 'black start' emergency diesel generators.	produce guidance for use by businesses across the borough.		
12. Continue to work with developers and King's College London to explore best in class dust mitigation measures on Camden's construction sites	Using MAQF2 funding from the GLA, continue to work with developers on sites to implement and evaluate various best in class measures to minimise dust and emissions caused by construction sites. This work will be undertaken in partnership with King's College London.	Ongoing	Project has ended and Best in Class document will be published on the LLECP website shortly.
13. Ensure Camden's Smoke Control Zone is fully promoted and enforced.	The whole of Camden is a Smoke Control Zone, which means controls are in place on the types of fuels	Completed / ongoing	<ul style="list-style-type: none"> • 0 notices issued • 0 written notifications provided <p>Our website has been updated with relevant information</p> <p>A specific smoke control flyer was created and is sent to resident associations and GP surgeries annually.</p>

	that can be burned in commercial and domestic buildings. Ensure that relevant information is provided to existing building owners and developers to promote compliance.		
14. Minimise emissions from the construction and operation of new developments by requiring developers to adhere to current and any superseding best practice guidance and supplementary planning guidance.	Current policies developers must adhere to include the GLA's 2014 'Control of Dust and Emissions during Construction and Demolition' SPG, and the GLA's 2014 'Sustainable Design and Construction' SPG, which requires new developments to	Completed/Ongoing	<p>Via our planning regime, all developments considered to be major require an air quality assessment as well as an air quality neutral assessment. They are also required to assess the impact of the demolition and construction of air quality and recommend mitigation measures.</p> <p>Via our Construction Management Plan (CMP) which is a live document, we ensure compliance with control of dust and emissions during the demolition, earthworks and construction of a development. This includes requiring automatic dust monitoring on site, compliance with NRMM as well as other control measures listed in the GLA's guidance.</p>

	be 'air quality neutral'. By following these policies Camden will ensure that developments that would result in a decrease in air quality levels (nitrogen dioxide or particulate matters) will be resisted.		
15. Continue to use planning conditions and obligations to require developers to adopt measures which will reduce transport emissions during operational phase of developments.	Examples of measures includes but is not restricted to requesting travel and business plans, installing electric vehicle recharging infrastructure, and allocating car club bays.	Completed / ongoing	
16. Require developers to undertake an	Update planning policies where necessary to	Completed / ongoing	Refer to table K below.

<p>air quality assessment (AQA) in circumstances where a new development could have a negative impact on air quality where the development is adjacent to sensitive receptors such as schools, nurseries, hospitals and doctors' surgeries, or where the development will introduce new receptors into an area of existing poor air quality.</p>	<p>ensure that developers designate these sites with the correct risk level, and undertake mitigation and monitoring measures accordingly in subsequent Construction and/or Demolition Management Plans</p>		
<p>17. Ensuring the enforcement of CHP and biomass air quality policies,</p>	<p>Ensuring that developers select plant that meets the standards for emissions from</p>	<p>Completed / ongoing</p>	<p>Refer to table K below</p>

and review the potential impacts of other types of heat and electricity generation.	combined heat and power and biomass plants set out in the GLA's 2014 'Sustainable Design and Construction' SPG and use ultra-low NOX boilers in new developments.		
18. Ensuring the enforcement of Non Road Mobile Machinery (NRMM) air quality policies for new developments.	Ensure that developers are compliant with new NRMM policy introduced in 2015. Utilise guidance and training provided by the GLA to support enforcement officers.	Ongoing	Refer to table K below
19. Review and update Camden's air quality policies and guidance to developers where appropriate,	Conduct an assessment of policies and guidance to developers, including the CMP pro forma and air quality	Completed / ongoing	New supplementary planning guidance has been produced which covers requirements. As the CMP is a live document, it is always being reviewed and updated when necessary to ensure control measures are relevant and up to date.

<p>and feed into updates of Camden's wider planning policies.</p>	<p>checklist, to ensure these documents represent best practice.</p>		<p>We are currently working on a cumulative impact approach for key areas where large clusters of development occurs and impacts on local air quality. This cumulative impact would require stricter measures as compared to what is required from the CMP.</p>
<p>20. Map air quality levels and local health prevalence and inequalities data with other indicators to support planning processes.</p>	<p>Mapping air quality levels with existing and proposed energy generations (including CHP units) and decentralised energy networks, existing green infrastructure, electric vehicle charging infrastructure, and other indicators to better inform the planning process. Include local prevalence data on health issues affecting residents at postcode level.</p>	<p>Ongoing</p>	<p>As meeting WHO levels has been our priority, we have commissioned Kings College London to model air quality in Camden to 2030 in response to different policy scenarios which will be implemented in our new 2019-2022 action plan and transport strategy. The modelling did map look at similar measures listed in this action. However, it did not include local health data but can be used to help identify key areas in future. This model has been used to test out the effectiveness of our new action plan and transport strategy at meeting WHO targets by 2030. An interactive map was also produced to help identify key sources in specific areas of Camden in enable a more targeted approach. The map will be made public once it has been updated with the new LAEI 2016 data.</p>

<p>21. Ensure that policies and assurances are in place to minimise the impact of High Speed 2 on Camden before the construction phase of the scheme begins.</p>	<p>Work in partnership with HS2 and with other stakeholders (including other authorities, GLA, TfL, and various residents groups) to ensure that potential impacts of HS2 are minimised.</p> <p>This will build on assurances from HS2 on a number of air quality issues, including air quality monitoring, compliance reporting, use of low emission vehicles, bespoke NRMM</p>	<p>Completed/Ongoing</p>	<p>Regular bi-weekly meetings occur with Council officers and HS2 teams to discuss progress of project and ensure compliance with assurance.</p> <p>Camden has negotiated assurances related to a number of air quality issues, including:</p> <ul style="list-style-type: none"> • Emissions standards for construction vehicles • Emissions standards for Non Road Mobile Machinery • Standards for the management of dust and emissions from construction sites • Baseline data monitoring of the impact of HS2 on highways and roads • Data sharing with Camden • Support in quantifying the impact of HS2
--	--	--------------------------	--

	regulations, and plans to minimise air quality impacts during the operational phase of HS2.		
22. Ensure that High Speed 2 is compliant with all agreed policies and assurances upon commencement of construction phase of the scheme.	Ensure that monitoring and reporting regimes agreed with HS2 are correctly adhered to, and that any air quality problems caused by HS2 are minimised and mitigated as far as possible.	Ongoing	Exceedance alerts are sent to the Council along with summary of the source and action taken. Any continuous issues as addressed immediately via our HS2 team.
23. Continue to undertake measures to increase walking and cycling in Camden.	The Camden Transport Strategy maintains our commitment to sustainable transport and	Ongoing	Refer to our new Camden Transport Strategy to view our policies and actions in relation to delivering this measure. Key overarching targets from the Strategy for walking and cycling, including increasing Camden residents' mode share by walking from 42% (2016/17) to half of all trips being walked by 2041, and doubling the resident mode share for cycling, from 3.6% (2016/17) to 7.5% by 2025, and doubling again to 15% by 2041.

	<p>includes key objectives to:</p> <ul style="list-style-type: none"> • reduce motor traffic levels and vehicle emissions to improve air quality, mitigate climate change and contribute to making Camden a 'low carbon and low waste borough' • encourage healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden. <p>Camden will ensure these key objectives</p>		<p>In addition to the CTS, we also have a: Cycle Action Plan, Walking and Accessibility Action Plan, Electric Vehicle Charging Point Action Plan and Road Safety Action Plan which can all be found on: https://www.camden.gov.uk/transport-strategies-and-plans?inheritRedirect=true and contribute to the delivery of this action.</p>
--	---	--	--

	<p>continue to be met.</p> <p>Work to leverage funding with LB Islington to implement a project aimed at encouraging increased cycling among residents through a cycle loan scheme.</p>		
<p>24. Support the uptake of low emission and alternatively fuelled vehicles in the borough.</p>	<p>In addition to Action 22, this Action covers a variety of activity, including working with the network provider to improve the coverage and reliability of Camden's existing electric vehicle charging network,</p>	<p>Ongoing</p>	<p>LB Camden has installed a permanent CNG supply at our York Way depot, replacing the previous system that required gas to be transported in by road. This system is currently being used by our fleet and may be open to the public including neighbouring boroughs in the near future.</p> <p>We have also increased the amount of EV charging in the borough (both regular and lamp column) and are working with TfL to identify locations for rapid chargers.</p>

	<p>providing information and guidance to residents on vehicle options, and monitoring the uptake and usage of low emission vehicles in Camden.</p>		
<p>25. Explore options to fund rapid charging electric vehicle infrastructure.</p>	<p>Work with public sector (for example the DECC Office for Low Emission Vehicles) and private sector (for example private hire vehicle fleet operators, private energy suppliers) to fund and install rapid charging</p>	<p>Ongoing</p>	<p>Currently looking to install at least 1 rapid charger at our York Way Depot.</p> <p>Neighbourhoods of the Future school project received funding to install 5, 22KW 'fast' charge points in schools located in our Fitzjohn area.</p> <p>We have also secured funding from the Go Ultra Low City Scheme to install lamp column chargers.</p> <p>The number of active EV resident parking permits has increased from just under 300 in 2017 to just under 400 in 2018.</p> <p>Camden currently has 139 on-street electric vehicle charging points. This map shows where the chargers are located.</p>

	electric vehicle infrastructure.		
26. Encourage modal shift away from diesel vehicles through parking permit charges.	Increase the additional charges currently appended to business and resident parking permits if the vehicle being registered is a diesel. The annual adjustment of parking fees and charges to be based on the annual adjustment of the TfL Zone1 & 2 travelcard, and is subject to periodic review.	Completed / ongoing	Since the introduction of a diesel surcharge, there has been a decline in the uptake of residential diesel permits and market trader diesel permits of 7% and 25% respectively.
27. Engage with TfL and taxi and private	This includes liaising with major business	Ongoing	In the development of our new Action plan, the LTDA have become an active partner in helping to address taxi emissions. In the 2019

<p>hire vehicle operators to encourage and implement measures to reduce their emissions where practical.</p>	<p>users of taxis (including major train station operators), and also providing support for the introduction of new zero emission capable taxis in London from 2017.</p> <p>Continued engagement with TfL to encourage TfL to undertake anti-idling enforcement of taxis.</p>		<p>ASR, details of taxi engagement including anti idling work will be detailed.</p>
<p>28. Continue to enforce anti-idling policies at idling hotspots and review areas where enforcement is undertaken.</p>	<p>Review current arrangements of both enforcement officers and signage to minimise idling at designated</p>	<p>Ongoing</p>	<p>Camden is a partner on the Idling Action project funded by MAQF and led by City of London. A total of 4 idling events were held this year.</p> <p>Camden parking enforcement officers although they cannot issue idling fines are actively engaging with idling drivers to influence them to turn their engines off – from their records, most comply with the request to turn their engines off.</p>

	<p>hotspots. This includes exploring the use of Fixed Penalty Notices.</p> <p>Liaise with businesses and developers to reduce where possible idling, and directly contact businesses who regularly have drivers idling.</p> <p>Work with other boroughs on 'Cleaner Air Action Days' throughout the year, where concerted efforts are made to reduce idling through volunteers and</p>		<p>Camden is also seeking a TMO to increase the fine. This will be detailed in the 2019 ASR.</p>
--	--	--	--

	publicity materials.		
29. Explore emissions based charging for paid-for-parking bays to encourage modal shift or the use of less polluting vehicles.	This would involve introducing a variable charging scheme with the drivers of the highest polluting vehicles paying more to park.	Completed	
30. Review housing estate Parking permits and enforcement, identify and implement improvements to increase efficiency and effectiveness in influencing car ownership and usage.	Complete a full audit of housing estate parking, develop options for change, in consultation with stakeholders and residents, and implement any agreed proposals.	Completed	
31. The proportion of low emission vehicles in	In addition to Action 26, work to improve the	Ongoing	Our new action plan has an action to reduce emissions from Council fleet, targeting a low and zero tailpipe emission fleet by 2022. New vehicles have already been purchased/leased to comply with ULEZ and progress continues on upgrading the fleet to electric and CNG.

<p>Camden's fleet, and reduce overall fuel usage.</p>	<p>proportion of low emission vehicles in Camden's fleet by adhering to the council's fleet fuel hierarchy for procurement of vehicles, and ensuring hired vehicles are to the lowest emission standards</p>		
<p>32. Ensure that Camden's major vehicle procurement exercises deliver fuel savings and emissions reductions</p>	<p>Camden Repairs are due to replace 145 vehicles in a major procurement exercise in 2017. In addition, a further 40 vehicles used by Camden's Special</p>	<p>Ongoing</p>	<p>Refer to action 31.</p>

	<p>Educational Needs and Adult Social Care teams are due to be replaced.</p> <p>Camden will ensure that these procurement exercises, in line with the council's green fleet policy, will result in the introduction of alternatively fuelled vehicles that will significantly reduce emissions from Camden's fleet.</p>		
<p>33. Install a permanent supply of Compressed Natural Gas at</p>	<p>Replace the trailer based supply of CNG with a permanent</p>	<p>Completed</p>	

<p>Camden's York Way depot for use by the council fleet and external operators.</p>	<p>station which will reduce outages and reduce the cost of supply. The station will continue to be open to use by other CNG users (commercial and private), in order to continue to promote alternatively fuelled low emission vehicles.</p>		
<p>34. Ensure that fleet operators and contractors working with Camden minimise their emissions where possible.</p>	<p>Ensure that Camden's Contractor Green Vehicle Fleet Standard is implemented where necessary in all council contracts and tenders. Work with contractors</p>	<p>Completed/ongoing</p>	<p>In our new round of MAQF anti idling project, we will engage with fleet operators to train them on eco driving and influence behaviour change with regards to idling.</p>

	<p>where appropriate to help them fulfil obligations and work towards lower emission fleets for use in Camden contracts and beyond.</p>		
<p>35. Maintain 'Gold' Fleet Operator' accreditation for Camden's fleet.</p>	<p>Ensure that Camden maintains the highest level of accreditation. A requirement of FORS accreditation is that fleet operators manage, measure and report fuel consumption and at silver/ gold levels, work to actively reduce</p>	<p>Ongoing</p>	<p>Currently hold Bronze status on the FORS website.</p>

	emissions. As well as environmental performance, FORS also focuses on safety and efficiency of fleet operations.		
36. Ensure ongoing uptake of FORS bronze among Camden' via Procurement and Planning controls	<p>Work related road risk (WRRR) procurement terms require contractors operating vehicles to achieve FORS bronze (along with other safety equipment).</p> <p>It is a planning requirement that fleet operators working on construction sites are</p>	Ongoing	S106 agreements require CLOCS standards

	<p>required to adhere to the 'CLOCS standard for managing work related road risk'. FORS bronze is the minimum requirement of CLOCS, but the wider standard is aligned to FORS silver.</p>		
<p>37. Continue to develop the London Boroughs Consolidation Centre (LBCC) to further reduce the number of deliveries servicing council and business premises in Camden.</p>	<p>Build on the success of the LBCC project to increase its impact on local air quality. This includes increasing the number of suppliers who use the LBCC to service Camden's</p>	<p>Ongoing</p>	<p>Project part of the MAQF2 which is now completed and final report has been submitted to TfL/GLA.</p> <p>Obtained funding from Defra in 2019 for a Clean Air Villages project that will allow our BIDs to use the consolidation centre as a trial.</p>

	<p>buildings, while also bringing on board new businesses and premises to the scheme, potentially including the Camden Clinical Commissioning Group (CCG).</p> <p>This action includes undertaking a deliveries trial as part of the West End Project.</p>		
<p>38. Work in partnership with schools by providing advice to encourage the adoption of travel plans and other policies to reduce</p>	<p>Work with schools, both through the planning process for new developments and through ongoing partnerships, to encourage the</p>	<p>Ongoing</p>	<p>LB Camden is committed to ensuring that all our schools have a school travel plan in place.</p> <p>Currently there are: Bronze 20 Silver 6 Gold 12 Total Schools accredited 38</p>

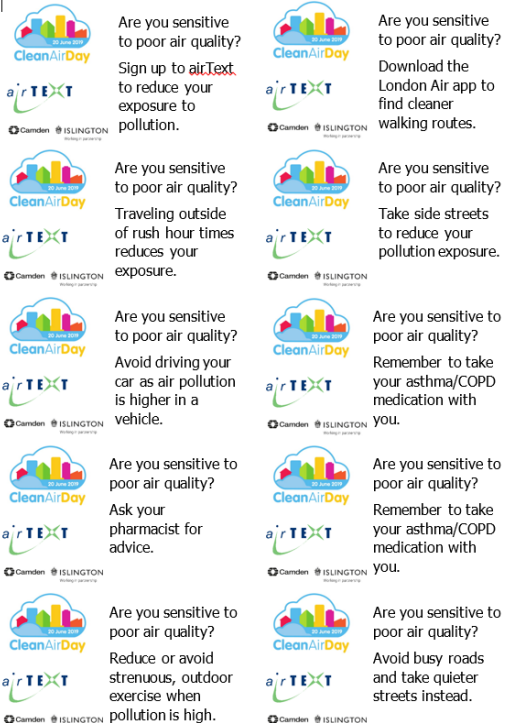
<p>transport emissions.</p>	<p>uptake of policies to reduce transport emissions and improve the health and wellbeing of staff and pupils.</p> <p>This will include encouraging schools to join the TfL STARS accredited travel planning programme by providing information on the benefits to schools and supporting its implementation.</p>		
<p>39. Work in partnership with businesses by providing advice to encourage the</p>	<p>Continue to provide leadership and share best practice by promoting</p>	<p>Completed - Ongoing</p>	<p>Projects delivered in partnership with CRP as part of the MAQF 2 include:</p> <ul style="list-style-type: none"> • Wellbeing walks delivered by CRP, Camden Town Unlimited and Urban Partners • The Fitzrovia Partnership's FitzPark parklet

<p>adoption of travel plans, consolidated delivery plans, and other policies to reduce transport emissions.</p>	<p>benefits of freight consolidation to businesses.</p> <p>Work with the Cross River Partnership to continue delivering travel advice and interventions to businesses working with Camden's Business Improvement Districts through the Cleaner Air Better Business Project.</p>		<ul style="list-style-type: none"> • Click. Collect. Clean Air.' personal deliveries campaign with Hatton Garden BID <p>Refer to CRP Clean Air Better Business site for more information.</p> <p>Camden's Climate Change Alliance also works with members to reduce their environmental impact, including air quality.</p> <p>As part of the development of our new action plan, we have brought together various sector representatives who have committed to delivering air quality measures. For further details on our new action plan and the Clean Air Partnership that was developed with various sectors refer to our new action plan.</p> <p>We will also be working with BIDs to consolidate their deliveries and waste, again refer to new action plan for details.</p>
<p>40. Engage with railway companies to tackle both indoor air quality issues in train stations located in</p>	<p>Work with major station and train operators to look at ways to improve indoor air quality at</p>	<p>Ongoing</p>	<p>HS1, Network Rail and HS2 are part of our new Camden Clean Air Partnership. These groups are part of our new Camden Clean Air Partnership and have contributed to the production of our new action plan. Pending funding, we will be looking at projects that address indoor air quality in Camden's main rail stations. Additionally, we have committed to lobbying the government on electrifying the rail fleet. Refer to our new action plan for future details.</p>

<p>Camden, and work to mitigate the impacts of emissions from diesel trains.</p>	<p>Camden's main stations.</p> <p>Engage with train operators to work towards lower emission train engines, and to explore options for mitigating unavoidable emissions from diesel trains.</p>		
<p>41. Explore potential for a Camden specific or central London wide 'car free day'.</p>	<p>Work with other central London boroughs to investigate the possibility of a central London wide car free day, building on the successes of previous car free day projects</p>	<p>Completed/Ongoing</p>	<p>Considered unfeasible due to the resources required and lack of long term impact. However, we are supporting those in Camden who wish to close off their streets for events such as play streets or national car free day. We have also recently been awarded LEN MAQF3 money to trial closing Camden High Street during specific days in the summer, Christmas, national car free day and national clean air day.</p>

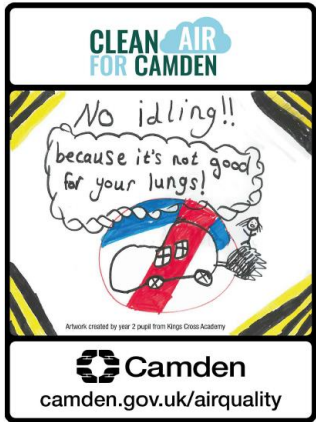
<p>42. Continue to disseminate up to date information about air quality and investigate new methods of informing the public about air pollution levels.</p>	<p>In line with the Actions in Section 1, work to ensure that Camden residents, schools and businesses are kept up to date with information on air quality and current air pollution levels.</p> <p>Investigate the potential for new methods of disseminating air quality information, either through better utilising existing communication channels or through new means of</p>	<p>Completed - Ongoing</p>	<p>In Jan 2018, LB Camden released a new air quality campaign called Clean Air For Camden with posters, promo video and pledges designed for schools, businesses and residents.</p> <p>https://consultations.wearecamden.org/communications-strategy-improvement/clean-air-for-camden-pledge/</p> <p>https://www.youtube.com/watch?v=UxcLxn29KOc&feature=youtu.be</p> <p>We have also started communicating our air quality events and projects via facebook, Council twitter, portfolio lead twitter account as well as via our Camden Climate Change Alliance page.</p>
---	---	----------------------------	---

	contacting the public.		
43. Promote the availability of air pollution forecasting services such as airText.	Encourage sign ups to the airText service through Camden's website and social media channels. Also ensure that promotion of airText is included where appropriate in messaging of other air quality awareness raising projects.	Completed - ongoing	Via our website Camden Magazine
44. Work with public health and council resilience teams to ensure that vulnerable populations are better aware of	Specific targeting of services such as airText to vulnerable residents. Working with CCG and	Ongoing	Produced an air quality video for GP practices to show on their TV screens to educate viewers on air quality and help them make better choices in terms of their exposure. Have also posted air quality messages on the Camden GP website . Have also produced air quality stickers for pharmacies to put on prescription packs that are

<p>high pollution days and short term actions they can</p>	<p>doctors' surgeries to further improve dissemination of information about high pollution days.</p>		<p>for illness impacted by air quality. The stickers hold key messages:</p>  <p>Are you sensitive to poor air quality? Sign up to airText to reduce your exposure to pollution.</p> <p>Are you sensitive to poor air quality? Download the London Air app to find cleaner walking routes.</p> <p>Are you sensitive to poor air quality? Traveling outside of rush hour times reduces your exposure.</p> <p>Are you sensitive to poor air quality? Take side streets to reduce your pollution exposure.</p> <p>Are you sensitive to poor air quality? Avoid driving your car as air pollution is higher in a vehicle.</p> <p>Are you sensitive to poor air quality? Remember to take your asthma/COPD medication with you.</p> <p>Are you sensitive to poor air quality? Ask your pharmacist for advice.</p> <p>Are you sensitive to poor air quality? Remember to take your asthma/COPD medication with you.</p> <p>Are you sensitive to poor air quality? Reduce or avoid strenuous, outdoor exercise when pollution is high.</p> <p>Are you sensitive to poor air quality? Avoid busy roads and take quieter streets instead.</p>
<p>45. Continue to seek funding for air quality projects.</p>	<p>Continue to work with partners and funding bodies to identify and apply for funding to implement air quality projects.</p>	<p>Ongoing</p>	<p>Current projects include:</p> <ul style="list-style-type: none"> • Neighbourhoods of the Future School project • Go Ultra Low Cities <p>Have recently received funding from Defra for a Clean Air Villages 2 project and funding from MAQF3 for a LEN, cargo bike project, NRMM and idling project</p>

<p>46. Disseminate the results and best practice from current and completed projects to further improve awareness of air quality.</p>	<p>Ensure that final project reports, case studies, toolkits, and any other final project outputs are disseminated to interested parties in Camden and beyond.</p> <p>This Action also includes endeavouring to learn from other final outputs from relevant projects undertaken by other local authorities and organisations</p>	<p>Ongoing</p>	<p>Main platform continues to be Camden's website and magazine.</p>
<p>47. Provide support for 'citizen science' projects being</p>	<p>Provide support and guidance where appropriate to 'citizen science'</p>	<p>Ongoing</p>	<p>First round of the community monitoring project completed; second round to commence in early 2019.</p> <p>CIL community monitoring / air quality projects also being supported.</p>

<p>undertaken in the borough.</p>	<p>projects planned by businesses or resident groups. This could include air quality monitoring in local areas to inform the Neighbourhood Planning, or supporting businesses wishing to engage in personal exposure experiments.</p>		
<p>48. Increase awareness of air pollution in and encourage modal shift away from cars in schools through educational projects and lessons within</p>	<p>Work in partnership with an educational provider and other London boroughs to implement a project in Camden's</p>	<p>Ongoing</p>	<p>Along with our school travel plan and STARS program, LB Camden is also engaging with schools providing air quality toolkits and also directly engaging with the children directly. Have worked with the schools and nurseries who received air quality audits from the GLA to implement the recommended measures. As part of our new action plan, we are committed to delivering air quality audits to all primary schools in Camden by 2022 and have also committed to producing bespoke clean air walking routes for primary schools. King's Cross Academy produced artwork for our anti idling street signs:</p>

<p>the national curriculum.</p>	<p>primary schools to increase pupil, teacher and parent awareness of air quality, what actions can be taken on high pollution days to reduce exposure, and to encourage modal shift away from getting to and from schools by car.</p>		 <p>The poster is titled 'CLEAN AIR FOR CAMDEN' in blue and green text at the top. Below the title is a child's drawing of a car with a red 'X' over it, and the text 'No idling!! because it's not good for your lungs!' written in a speech bubble. At the bottom, it says 'Camden' with a logo and the website 'camden.gov.uk/airquality'.</p>
<p>49. Strengthen the links between air quality and public health by briefing Director of Public Health on air quality issues and actively requiring their sign-off of</p>	<p>Help encourage greater visibility of air quality within local authority public health teams, and ensure that public health teams support and advocate the air quality</p>	<p>Ongoing</p>	

<p>statutory reporting.</p>	<p>work programme. The sign off of statutory reporting will help strengthen the links between air quality and public health through DPHs taking formal responsibility for delivery of air quality improvements.</p>		
<p>50. Director of Public Health to have responsibility for ensuring their Joint Strategic Needs Assessment (JSNA) has up to date information on air quality</p>	<p>Camden already has air quality as a key theme of its JSNA. Ensuring up to date evidence based information in JSNAs strengthens the links and joint</p>	<p>Completed/ongoing</p>	<p>Listed as completed/ongoing as we already have an air quality section in our JSNA however these documents are updated regularly with new data.</p>

impacts on the population	working between air quality and public health.		
51. Work with Public Health to strengthen engagement with Camden's Clinical Commissioning Group and Camden's GP surgeries.	<p>To build on the successes of Camden AirAware project, which delivered training sessions to public health staff on air quality, by working with public health to establish a closer relationship with Camden's GP surgeries.</p> <p>This Action intends for a project to be implemented that will involve close working with Camden's CCG and GPs to</p>	Ongoing	Currently working with our public health team to introduce air quality into key areas such as asthma, obesity, etc. This information will be used for toolkits and provided to the CCG, pharmacies, GPs and non-health professionals who have direct contact with the vulnerable/most susceptible for use.

	<p>increase awareness of air quality among health professionals and patients visiting GP surgeries.</p>		
<p>52. Work with Business Improvement Districts and other business organisations on joint projects and interventions to increase awareness of air quality.</p>	<p>To continue to provide support to Camden's Climate Change Alliance members and the BIDs in the borough to improve air quality awareness. Work with existing Air Quality Business Champions to help them further increase awareness and reduce</p>	<p>Ongoing</p>	<p>Measure linked to measure 39 of this Plan.</p> <p>Have obtained funding from Defra and MAQF3 to deliver air quality projects with BIDs. Refer to our new action plan for details.</p>

	emissions, and look to work with new businesses.		
53. Investigate potential for green infrastructure projects to improve awareness of air quality and help absorb emissions.	Build on existing green infrastructure audits and greening strategies to quantify the air quality benefits of interventions and ensure that any projects are widely publicised to raise general awareness of air quality.	Ongoing	Currently updating our Tree Strategy to include air quality. Have also provided a list of plants and trees to our projects team to consider for Council housing and highway projects.
54. Submit an application for a Low Emission Neighbourhood from the Mayor's Air Quality Fund, that could have a transformative	Camden has submitted a full application for a LEN from the Mayor's Air Quality Fund that sets out a vision for a LEN in Somers Town.	Completed	Camden were unsuccessful in obtaining funding.

<p>impact on air quality in Somers Town.</p>	<p>Should the application be successful, this Action includes implementing a LEN from the projected project start date in April 2017.</p> <p>To use the feasibility study undertaken as part of the LEN application as a guide to implementing innovative air quality projects throughout the borough, ensuring that irrespective of the success of Camden's LEN bid, the benefits outlined in the application are</p>		
--	--	--	--

	maximised as far as possible.		
55. Work with partners to look at innovative ways of highlighting successes of air quality work	Explore options for better ways of highlighting work on air quality, which will also raise public awareness of the issue. This may include drop-in events for residents, videos or other audiovisual projects, and ties in the actions in Section 1 relating to sharing monitoring information and updating Camden's AQ web pages.	Ongoing	Currently conducted via: <ul style="list-style-type: none"> • Cluster group meetings • Clean Air for Camden campaign • Camden's air quality website • Camden's magazine • Resident group meetings • Camden Climate Change Alliance • Clean Air Better Business project with Cross River Partnership • Annual statutory reports

<p>56. Hold an air quality conference in 2016 to help raise awareness of air quality and to help forge new relationships with partners interested in air quality work.</p>	<p>Camden has held two joint conferences with LB Islington to help promote air quality awareness and highlight best practice success stories. Camden will host another conference in 2016 to help increase awareness of air quality across the borough and also bring interested partners and stakeholders together to work collaboratively on this issue.</p>	<p>Completed</p>	
<p>57. Continue to support measures introduced by</p>	<p>This includes working in joint projects,</p>	<p>Completed / Ongoing</p>	<p>Have participated in the Mayors air quality audits, continue to work on GLA funded projects (anti idling, NRMM, LEN, cargo bike project). Also attend APRIL meetings and the schools air quality audit steering group meetings. Continue to respond to GLA and TfL</p>

the Mayor of London and national government to improve air quality.	attending meetings, responding to consultations, and taking an active role in air quality management in London.		consultations on matters relating to air quality. Have invited the GLA to join our Camden Clean Air Partnership.
58. Continue to partner with other local authorities to lobby TfL and the GLA on reducing air pollution from taxis and buses.	Continue to work to improve the environmental performance of large sources of emissions that are outside of the direct control of the council.	Ongoing	Have responded to TfL's consultation on reducing age limit for taxis and have also responded to the GLA's LLAQM consultation. Refer to our new action plan for details our lobbying actions.
59. Support the GLA and TfL on the introduction of the Ultra Low Emission Zone (ULEZ), but continue to press for the scheme to be improved to	While supporting the principle of the ULEZ, Camden has repeatedly argued for that the scheme could be geographically	Completed - ongoing	Camden's formal response to the consultation supports the principle of expanding the ULEZ, however we believe that it should extend beyond the proposed North and South Circular boundary to align with the existing LEZ, and encompass the whole of Greater London.

<p>further reduce air pollution.</p>	<p>wider, stricter, and brought in sooner than the GLA have proposed. While Camden will work to implement the proposed ULEZ, it will do so while continuing to work for the scheme to be improved to benefit the health of Camden's population as far as possible.</p>		
<p>60. Lobby national government to provide further financial and strategic support for local authorities to improve air quality, and</p>	<p>This work could be undertaken in conjunction with other London boroughs, the GLA, or with local partners</p>	<p>Ongoing</p>	<p>Refer to our new Action Plan for details our on lobbying actions.</p>

<p>lobby for further action on national policies on diesel vehicles such as changes to road tax and a national diesel scrappage scheme.</p>	<p>and major stakeholders.</p> <p>Progress towards this action could be made through direct lobbying, through meetings and other forums, or through official responses to consultations.</p>		
<p>61. Continue to partner with other major stakeholders and partners to lobby TfL and the GLA on improving air quality on Euston Road and other parts of the TfL Road Network.</p>	<p>Camden's concerns over air quality around the Euston Road are shared with a number of major business partners located around the area and health organisations based in the borough.</p>	<p>Ongoing</p>	<p>In addition to working with TfL and GLA, we are also working with the Euston Town BID to improve air quality around the Euston area. This includes delivering projects such as the Clean Air Villages 2 project.</p>

	<p>Camden will continue to work with partners to lobby and hopefully partner with the GLA and TfL to reduce air pollution caused by the TfL road network.</p>		
--	---	--	--

3. Planning Update and Other New Sources of Emissions

Table K. Planning requirements met by planning applications in The London Borough of Camden in 2018

Action	Number	Notes
a) Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	24	
b) Number of planning applications required to monitor for construction dust	14	
c) Number of CHPs/Biomass boilers refused on air quality grounds	0	
d) Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	0	
e) Number of developments required to install Ultra-Low NO _x boilers	0	
f) Number of developments where an AQ Neutral building and/or transport assessments undertaken	14	
g) Number of developments where the AQ Neutral building and/or transport	4	

assessments not meeting the benchmark and so required to include additional mitigation		
h) Number of planning applications with S106 agreements including other requirements to improve air quality	0	Camden currently does not secure S106 monies from planning applications for air quality. GLA guidance needs to clearly reflect this requirement in its London Plan in order for it to be adopted into Camden's planning policies.
Number of planning applications with CIL payments that include a contribution to improve air quality	0	CIL contributions are solely for community projects which can include air quality amongst other things. It is therefore difficult to provide a figure for this question.
i) NRMM: 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 IIIB of the Directive and/or exemptions to the policy.	27 CMP's secured via S106. 20 registered on the NRMM site 7 have not*	All our CMP's have an NRMM compliance requirement. In 2018 no site visits were conducted to ensure compliance; compliance was assessed via registration on NRMM website and information submitted. Site visits have commenced in 2019 and will be reported in the next ASR. *for those not registered, it may be that they have delayed the commencement of their works.
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	53 CMP's secured via S106 63 registered on the NRMM site**	All our CMP's have an NRMM compliance requirement. In 2018 no site visits were conducted to ensure compliance; compliance was assessed via registration on NRMM website and information submitted. Site visits have commenced in 2019 and will be reported in the next ASR.

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.		**Some sites may have registered without being required; or may have registered due to planning conditions which are not accounted for here.
---	--	--

We recognise that this table has been difficult for some boroughs to complete, either because planning data is not collected or not collected in a form that is easily translatable into the table. The purpose of each row in the table is to assess implementation of GLA planning or policies. An additional column has been added for notes where you can note any qualifications to the data or local policies that are relevant (e.g. use of standard conditions).

Notes on the table:

- a. The purpose of this row is to identify whether all applications that are submitted with an air quality assessment or EIA are checked by the air quality officer/team. The requirement to submit an assessment is subject to local validation criteria, however the new London Plan specifies that all major developments should be accompanied by an assessment, so this should equal at least the number of major applications received once the new London Plan is finalised.
- b. The purpose of this row is to understand how widely active dust monitoring is used on construction sites. Dust monitoring is recommended in the GLA Control of Dust and Emissions during Construction and Demolition SPG for some high-risk sites. This number should include all sites where monitoring is required by condition or secured as part of a construction management plan or similar.
- c. This purpose of this row is to understand how far air quality policies are influencing the design or choice of communal heating systems. For the purposes of recording, "refused" should include applications where air quality impacts from the heating system are included in the reasons for formal refusal and applications where the energy strategy has been revised post-submission to remove CHP or biomass as a result of air quality concerns raised during the decision-making process.
- d. The purpose of this row is to ensure that the emissions limits for CHP and Biomass set out in Appendix 7 of the GLA Sustainable Design and Construction SPG are implemented. You should only count instances where compliance with these limits (or tighter limits, if required) have been secured by condition. You may want to note instances where conditions have not been imposed in the notes column.
- e. This row should record the number of planning permissions where use of ultra-low NO_x boilers were required as a direct condition or as a condition securing conformity with submitted documents, not the total number of boilers. Where standard conditions are used it is sufficient to say all developments, or all developments that meet a particular threshold (or however the decision to use standard conditions is done.)

- f. The purpose of this row is to identify how well applicants are implementing the requirement to undertake an air quality neutral assessment as part of the overall air quality assessment for developments.
- g. This row is intended to identify how challenging it is for developers to meet air quality neutral and should count the number of applications where the initial air quality neutral calculation showed the benchmarks were not met and additional on-site mitigation measures were agreed with the developer prior to grant of consent.
- h. These rows should be used to record the number of developments where payments of off-site measures were secured from the developments. This could be measures in lieu of meeting Air Quality Neutral on-site or other actions and payments relating to local policies or needs. It is not necessary to provide the amount of financial contributions.
- i. These rows should record the number of planning permissions where compliance with the NRMM LEZ is required as a direct condition or as a condition securing conformity a code of practice or a CMS requiring compliance. Where standard conditions are used it is sufficient to say all developments, or all developments that meet a particular threshold (or however the decision to use standard conditions is done.)

3.1 *New or significantly changed industrial or other sources*

No new sources identified.

Appendix A Details of Monitoring Site QA/QC

A.1 Automatic Monitoring Sites

Routine calibrations are carried out on a fortnightly basis by operators from King's College London ERG. These operators are trained to AURN standards.

Swiss Cottage and Bloomsbury are part of the AURN, as such, both are audited to the AURN standard. AURN sites are audited by providers selected by either Bureau Veritas (Bloomsbury) or Kings College London ERG (Swiss Cottage) who manage these sites for the AURN.

Non AURN sites are audited by the National Physical Laboratory (NPL) who are UKAS accredited. NPL is also UKAS accredited for the recertification of onsite cylinders.

All sites are audited every 6 months.

All sites comply with the validation procedures which conform to the requirements of the AURN and exceed the requirements of LAQM TG(16). The data ratification procedures also exceed the requirements of TG(16).

PM₁₀ Monitoring Adjustment

Dynamic correction of PM₁₀ TEOM measurements is conducted via the approved Volatile Correction Model (VCM) method, developed by King's: the only EU reference equivalent method for this instrument.

A.2 Diffusion Tube Quality Assurance / Quality Control

- Lab supplying and analysing the tubes: Gradko International.
- Preparation method used: 50% TEA /Acetone
- Confirmation that the lab follows the procedures set out in the Practical Guidance: Yes
- Results of laboratory precision results: Gradko is rated as Good for precision according to Defra's [precision summary results](#).
- Gradko has consistently achieved 100% for the [AIR-PT](#) (formerly WASP) results.
- Bias adjustment factor: **0.89** obtained from the LAQM Support Website at: <https://laqm.defra.gov.uk/bias-adjustment-factors/bias-adjustment.html>
- Although tubes have been co-located at our Swiss Cottage site, a co-location study was not conducted. Reason: data capture less than 50%

Factor from Local Co-location Studies (if available)

N/A

Discussion of Choice of Factor to Use

The nationally derived bias adjustment factor was chosen as:

- Our Swiss Cottage co-located tubes only achieved 42% data capture
- The LLAQM TG16 guidance prefers the usage of the nationally derived factor as it includes many locally derived factors based on collocation data sent to NPL, as such, the national factor is likely to be more reliable.
- Based on box 4.10 of the LLAQM TG16, the nationally derived factor is preferable

A.3 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

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

Euston Road automatic monitoring annualisation:

NO₂

Site	Site Type	Annual Mean (µg/m ³)	Period Mean (µg/m ³)	Ratio
BL0	Continuous, urban background	36.39	39.04	0.93
IS6	Continuous, urban background	26.70	27.98	0.95
CT3	Continuous, urban background	31.83	32.55	0.98
Average				0.9548

Therefore annualised Euston Road NO₂ is $86.24 \times 0.9548 = 82.34$

PM₁₀

Site	Site Type	Annual Mean (µg/m ³)	Period Mean (µg/m ³)	Ratio
BL0	Continuous, urban background	17.38	15.04	1.16
IS6	Continuous, urban background	19.47	19.07	1.02
CT3	Continuous, urban background	20.28	20.09	1.01

Site	Site Type	Annual Mean ($\mu\text{g}/\text{m}^3$)	Period Mean ($\mu\text{g}/\text{m}^3$)	Ratio
Average				1.0620

Therefore annualised Euston Road PM_{10} is $21.23 \times 1.0620 = 22.55$

$\text{PM}_{2.5}$

Site	Site Type	Annual Mean ($\mu\text{g}/\text{m}^3$)	Period Mean ($\mu\text{g}/\text{m}^3$)	Ratio
BL0	Continuous, urban background	10.36	10.26	1.01
CT3	Continuous, urban background	12.18	10.73	1.14
CR8	Continuous, urban background	11.60	11.77	0.99
Average				1.0434

Therefore annualised Euston Road $\text{PM}_{2.5}$ is $14.93 \times 1.0434 = 15.58$

Swiss Cottage diffusion tube annualisation:

NO_2

Site	Site Type	Annual Mean ($\mu\text{g}/\text{m}^3$)	Period Mean ($\mu\text{g}/\text{m}^3$)	Ratio
BL0	Continuous, urban background	36.39	30.94	1.18
Average				1.1762

Therefore annualised Holborn NO_2 is $59.51 \times 1.1762 = 69.99$

Distance Adjustment

No distance adjustment required as all kerbside and roadside monitoring sites listed in this report are classified as relevant exposure.

Appendix B Full Monthly Diffusion Tube Results for 2018

Table M. NO₂ Diffusion Tube Results

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean NO ₂													Annual mean – raw data ^c	Annual mean – bias adjusted ^c
			Jan	Feb	March	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec			
CA4		83.3%		78.69	62.07	71.25	79.16	79.08	83.96		94.78	64.18	85.12	79.15	77.75	<u>69.2</u>	
CA6		75.0%		31.83	34.25		19.09		24.90	25.28	30.79	34.62	36.18	32.72	29.96	26.7	
CA16		91.7%		50.08	62.16	67.56	76.52	64.11	68.63	58.30	53.94	61.93	58.82	53.53	61.42	54.7	
CA7		91.7%		26.74	29.09	27.64	22.64	14.59	20.83	21.40	25.54	25.48	28.98	30.46	24.85	22.1	
CA17		83.3%		46.87	51.66	54.14	66.44	60.23	61.34	47.30	52.48	51.90	48.47		54.08	48.1	
CA15		41.7%						57.25	63.66	55.64		63.79	57.21		59.51	<u>62.3</u>	
CA20		91.7%		46.80	49.36	52.97	61.03	46.76	41.40	38.12	39.92	36.40	49.12	46.68	46.23	41.1	
CA10		91.7%		47.24	47.12	37.39	37.29	29.96	36.95	34.65	37.69	43.27	42.89	42.51	39.72	35.4	

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2018 % ^b	Annual Mean NO ₂												Annual mean – raw data ^c	Annual mean – bias adjusted ^c
			Jan	Feb	March	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec		
CA11		91.7%		94.72	74.39	80.19	75.31	55.64	83.63	71.48	78.13	67.27	61.32	70.53	73.87	65.7
CA25		91.7%		43.77	48.22	48.41	47.94	45.31	38.54	37.83	39.60	45.85	47.16	48.67	44.66	39.8
WITT		83.3%		39.22	44.11		40.33	37.92	42.08	37.65	46.14	47.01	43.61	41.83	41.99	37.4
CA23		91.7%		61.84	60.72	64.63	75.37	68.67	62.27	59.01	62.29	52.15	58.89	61.04	62.44	55.6
CA24		91.7%		47.47	48.77	42.33	41.07	35.91	37.60	41.02	43.38	49.05	44.12	47.39	43.46	38.7
CA21		83.3%		42.48		70.68	84.46	78.23	70.29	64.51	66.77	70.39	63.39	56.57	66.78	59.4

Exceedance of the NO₂ annual mean AQO of 40 µg m⁻³ are shown in **bold**.

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

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

^c Means should be “annualised” in accordance with LLAQM Technical Guidance, if valid data capture is less than 75% (**CA15 has been annualised according to LLAQM guidance**)