LB Camden Air Quality Annual Status Report for 2015

This report provides a detailed overview of air quality in Camden during 2015. It has been produced to meet the requirements of the London Local Air Quality Management statutory process[1].

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

CONTENTS

Abbreviations 3

1. Air Quality Monitoring 5

1.1 Locations 5

1.2 Comparison of Monitoring Results with AQOs 8

2. Action to Improve Air Quality 14

2.1 Air Quality Action Plan Progress 16

3. Planning Update and Other New Sources of Emissions 16

3.1 New or significantly changed industrial or other sources 28

Appendix A Details of Monitoring Site QA/QC 28

A.1 Automatic Monitoring Sites ..... **Error! Bookmark not defined.**

A.2 Diffusion Tube Quality Assurance / Quality Control ..... **Error! Bookmark not defined.**

A.3 Adjustments to the Ratified Monitoring Data ..... **Error! Bookmark not defined.**

Appendix B Full Monthly Diffusion Tube Results for 2015 ..... **Error! Bookmark not defined.**

Tables

Table A. Summary of National Air Quality Standards and Objectives 4

Table B. Details of Automatic Monitoring Sites for 2015 5

Table C. Details of Non-Automatic Monitoring Sites for 2015 5

Table D. Annual Mean NO_2 Ratified and Bias-adjusted Monitoring Results ($\mu g\ m^{-3}$) 9

Table E. NO_2 Automatic Monitor Results: Comparison with 1-hour Mean Objective 12

Table G. PM_{10} Automatic Monitor Results: Comparison with 24-Hour Mean Objective 13

Table H. Annual Mean $PM_{2.5}$ Automatic Monitoring Results ($\mu g\ m^{-3}$) *(if available, if not this section can be deleted)* ..... **Error! Bookmark not defined.**

Table I. SO_2 Automatic Monitor Results for 2015: Comparison with Objectives *(if available, if not this section can be deleted)* 14

Table J. Commitment to Cleaner Air Borough Criteria *This section is voluntary, although you are required to complete it if you wish to maintain your Cleaner Air Borough status* 14

Table K. Delivery of Air Quality Action Plan Measures 16

Table M. Short-Term to Long-Term Monitoring Data Adjustment ..... **Error! Bookmark not defined.**

Table N. NO_2 Diffusion Tube Results ..... **Error! Bookmark not defined.**

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

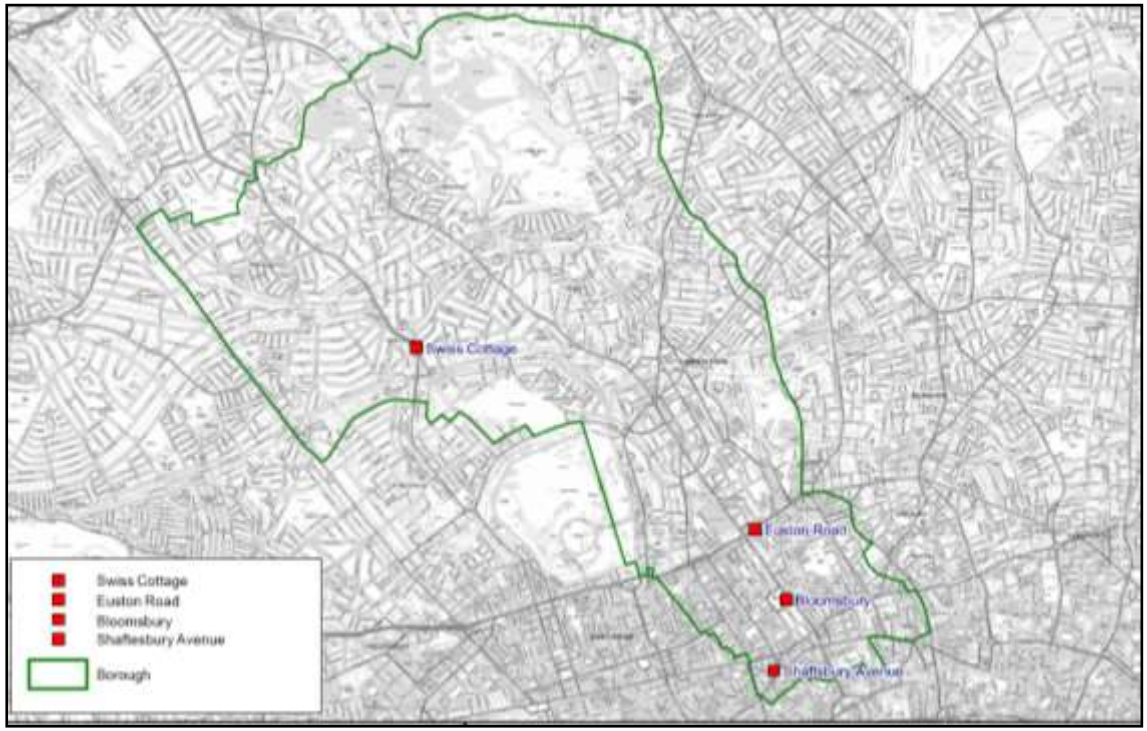
Pollutant	**Objective (UK)**	**Averaging Period**	**Date[1]**
Nitrogen dioxide - NO_2	200 μg m^{-3} not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
	40 μg m^{-3}	Annual mean	31 Dec 2005
Particles - PM_{10}	50 μg m^{-3} not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
	40 μg m^{-3}	Annual mean	31 Dec 2004
Particles - $PM_{2.5}$	25 μg m^{-3}	Annual mean	2020
	Target of 15% reduction in concentration at urban background locations	3 year mean	Between 2010 and 2020
Sulphur Dioxide (SO_2)	266 μg m^{-3} not to be exceeded more than 35 times a year	15 minute mean	31 Dec 2005
	350 μg m^{-3} not to be exceeded more than 24 times a year	1 hour mean	31 Dec 2004
	125 μg m^{-3} mot 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

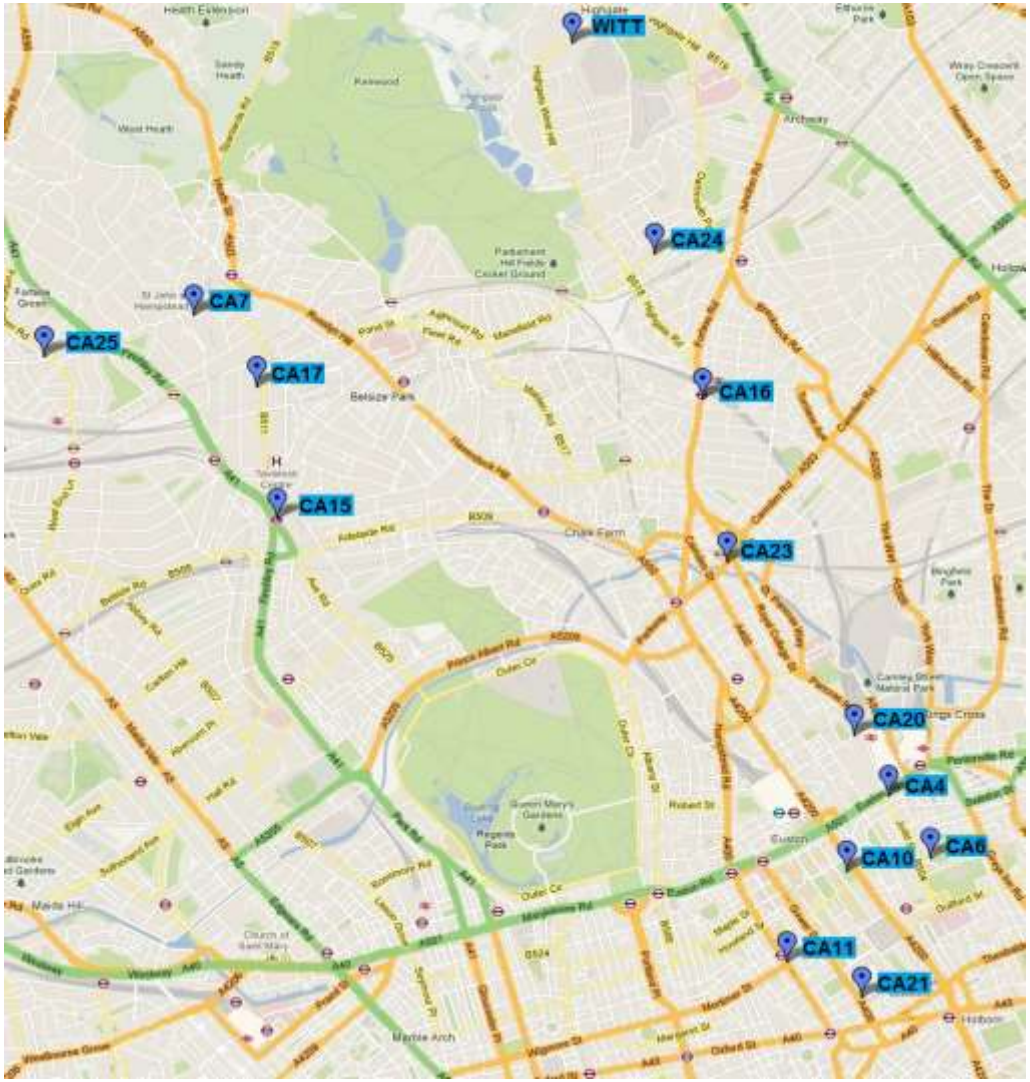
1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2015



Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Monitoring Technique	Relevant Exposure? *(Y/N with distance (m) to relevant exposure)*	Distance to kerb of nearest road *(N/A if not applicable)*	Does this location represent worst-case exposure?
LB: London Bloomsbury	Urban background	X 530120	Y 182034	NO_2, PM_{10}, $PM_{2.5}$, SO_2, CO, O_3	Y	FDMS, API Nox, TEOM	Y (40m)	27m	Y
CD1: Swiss Cottage	Kerbside	X 526633	Y 184392	NO_2, PM_{10}, $PM_{2.5}$,	Y	FDMS, AC31 Nox	Y (7m)	1.5m	Y
CD3: Shaftesbury Avenue	Roadside	X 530060	Y 181290	NO_2, PM_{10},	Y	TEOM, API Nox	Y (1m)	<1m	Y
CD9: Euston Road	Roadside	X 529878	Y 182648	NO_2, PM_{10}, $PM_{2.5}$	Y	API Nox, FDMS	Y (1m)	0.5m	Y

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



Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? *(Y/N with distance (m) to relevant exposure)*	Distance to kerb of nearest road *(N/A if not applicable)*	Does this location represent worst-case exposure?
CA4	Euston Road	Roadside	X 530110	Y 182795	NO_2	Y	N	Y (1m)	5m	Y
CA6	Wakefield Gardens	Urban background	X 530430	Y 182430	NO_2	Y	N	Y (18m)	30m	Y
CA7	Frognal Way	Urban background	X 526213	Y 185519	NO_2	Y	N	Y (6m)	30m	Y
CA10	Tavistock Gardens	Urban background	X 529880	Y 182334	NO_2	Y	N	Y (35m)	25m	Y
CA11	Tottenham Court Road	Kerbside	X 529568	Y 181728	NO_2	Y	N	Y (4m)	<1m	Y
CA15	Swiss Cottage	Kerbside	X 526633	Y 184392	NO_2	Y	Y	Y (7m)	<1m	Y
CA16	Kentish Town Road	Roadside	X 529013	Y 185102	NO_2	Y	N	Y (1m)	1m	Y
CA17	47 Fitzjohn's Road	Roadside	X 526547	Y 185125	NO_2	Y	N	Y (5m)	5m	Y
CA20	Brill Place	Roadside	X 529914	Y 183147	NO_2	Y	N	Y (9m)	<5m	Y
CA21	Bloomsbury Street	Roadside	X 529962	Y 181620	NO_2	Y	N	Y (4m)	<1m	Y
CA23	Camden Road	Roadside	X 529173	Y 184129	NO_2	Y	N	Y (5m)	<1m	Y

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Is monitoring collocated with a Continuous Analyser (Y/N)	Relevant Exposure? *(Y/N with distance (m) to relevant exposure)*	Distance to kerb of nearest road *(N/A if not applicable)*	Does this location represent worst-case exposure?
CA24	Chetwynd Road	Roadside	X 528722	Y 185950	NO_2	Y	N	Y (2m)	1m	Y
CA25	Emmanuel Primary	Roadside	X 525325	Y 185255	NO_2	Y	N	Y (3m)	1m	Y
WITT	Wittanhurst Lane	Roadside	X 528213	Y 187203	NO_2	Y	N	Y (3m)	1.5m	Y

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 NO_2 Ratified and Bias-adjusted Monitoring Results ($\mu g\ m^{-3}$)

Automatic Sites

Site ID	Nitrogen Dioxide (NO2) Annual Mean Concentration $\mu g/m^3$					
	2010* [c]	**2011* [c]**	**2012* [c]**	**2013* [c]**	**2014 [c]**	**2015**
LB: London Bloomsbury	55	50	**55**	**44**	**45**	**48**
CD1: Swiss Cottage	82	71	**70**	**63**	**66**	**61**

Site ID	Nitrogen Dioxide (NO2) Annual Mean Concentration µg/m³					
	2010* [c]	2011* [c]	2012* [c]	2013* [c]	2014 [c]	2015
CD3: Shaftesbury Avenue	89	76	**71**	**74**	**69***	**Data capture issues**
CD9: Euston Road	-	122*	**106**	**106**	**98**	**90**

Non Automatic Sites

Site ID	Location	Annual mean concentration (adjusted for bias) µg/m³					
		2010* (Bias Adjustment Factor = XX)	2011* (Bias Adjustment Factor = 0.95)	2012* (Bias Adjustment Factor = 0.95)	2013* (Bias Adjustment Factor = 1.00)	2014 (Bias Adjustment Factor = 0.97)	2015 (Bias Adjustment Factor = 0.98)
CA4	Euston Road	**82**	**93.12**	**82.05**	**107.75**	**89.74**	**86.76**
CA6	Wakefield Gardens	34	**45.61**	39.29	**40.32**	36.44	35.80
CA7	Frognal Way	29	31.46	28.89	31.95	28.55	27.78
CA10	Tavistock Gardens	**52**	**47.56**	**40.12**	**49.37**	**46.50**	**44.57**
CA11	Tottenham Court Road	**92**	**91.67**	**83.30**	**88.09**	**86.75**	**85.61**
CA15	Swiss Cottage	**71**	**73.17**	**72.66**	**83.08**	**74.34**	**69.28**
CA16	Kentish Town Road	**74**	**57.19**	**58.97**	**65.32**	**57.83**	**63.55**

Site ID	Location	Annual mean concentration (adjusted for bias) µg/m³					
		2010* (Bias Adjustment Factor = XX)	2011* (Bias Adjustment Factor = 0.95)	2012* (Bias Adjustment Factor = 0.95)	2013* (Bias Adjustment Factor = 1.00)	2014 (Bias Adjustment Factor = 0.97)	2015 (Bias Adjustment Factor = 0.98)
CA17	47 Fitzjohn's Road	**73**	**58.39**	**61.20**	**65.24**	**60.30**	**55.80**
CA20	Brill Place	**54**	**50.79**	**50.00**	**49.37**	**52.34**	**48.94**
CA21	Bloomsbury Street	**41**	**76.73**	**71.66**	**76.08**	**80.82**	**71.43**
CA23	Camden Road	**84**	**72.21**	**67.40**	**77.85**	**72.21**	**63.33**
CA24	Chetwynd Road	**68**	**44.12**	**43.67**	**47.75**	**44.76**	**46.52**
CA25	Emmanuel Primary	-	**41.5**	**45.94**	**57.91**	**48.36**	**47.70**
WITT	Wittanhurst Lane	-	-	-	**53.10**	**48.26**	**45.03**

Notes: Exceedance of the NO_2 annual mean AQO of 40 µgm^{-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.

[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 E. NO_2 Automatic Monitor Results: Comparison with 1-hour Mean Objective

Site ID	Site Type	Within AQMA?	Number of Exceedences of Hourly Mean (200 µg/m³				
			2010* [c]	2011* [c]	2012* [c]	2013* [c]	2014 [c]
LB	Urban background	Y	1	0	1	0	0
CD1	Kerbside	Y	**128**	**79**	**43**	**28**	13
CD3	Roadside	Y	21	15	12	6	1 (140.4)[b]
CD9	Roadside	Y	-	**726**	**295**	**296**	**170**

Notes: Exceedance of the NO_2 short term AQO of 200 µgm^{-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 PM_{10} Automatic Monitoring Results (µg m^{-3})

Site ID	PM10 Annual Mean Concentration µg/m³					
	2010* [c]	2011* [c]	2012* [c]	2013* [c]	2014 [c]	2015
LB: London Bloomsbury	18	22	19	18	20	22
CD1: Swiss Cottage	26	27	23	21	22	20
CD3: Shaftesbury Avenue	29	32	29	29	25	22
CD9: Euston Road	-	-	-	-	29	Tbc

Notes: Exceedance of the PM_{10} annual mean AQO of 40 µgm^{-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%

Table G. PM_{10} Automatic Monitor Results: Comparison with 24-Hour Mean Objective

Site ID	Site Type	Within AQMA?	Confirm Gravimetric Equivalent	Number of Exceedences of 24-Hour Mean (50 µg/m^3)					
				2010* [c]	2011* [c]	2012* [c]	2013* [c]	2014 [c]	2015
LB	Urban background	Y	Y	2	17	10	4	11	tbc
CD1	Kerbside	Y	Y	26	31	21	8	12 (40.8[c])	8
CD3	Roadside	Y	Y	29	27	18	17	16	4
CD9	Roadside	Y	Y	-	-	-	-	5 (44.1[c])	5

Notes: Exceedance of the PM_{10} short term AQO of 50 µg m^{-3} over the permitted 35 days per year or where the 90.4th percentile exceeds 50 µg m^{-3} are shown in bold**. Where the period of valid data is less than 90% of a full year, the 90.4th percentile is shown in brackets after the number of exceedances.**

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

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

[c] Means should be "annualised" in accordance with LLAQM Technical Guidance, if valid data capture is less than 75%

Table I. SO_2 Automatic Monitor Results for 2015: Comparison with Objectives

Site ID	Site Type	Within AQMA?	Number of Exceedences (percentile in bracket μg/m³)[c]		
			15-minute Objective (266 μg/m³)	1-hour Objective (350 μg/m³)	24-hour Objective (125 μg/m³)
LB	Urban Background	Y	0	0	0

Exceedances of the SO_2 AQOs are shown in bold **(15-min mean = 35 allowed a year, 1-hour mean = 24 allowed a year, 24-hour mean = 3 allowed / year)**

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

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

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

2. Action to Improve Air Quality

Table J. Commitment to Cleaner Air Borough Criteria

Theme	Criteria		Achieved (Y/N)	Evidence
1. Political leadership	***1.a***	Pledged to become a Cleaner Air for London Borough (at cabinet level) by taking significant action to improve local air quality and signing up to specific delivery targets.	*Y*	*Camden's statutory Action Plan 2016-18 was signed off at cabinet and director level by members with responsibility for environment and public health, and also by Camden and Islington's Director of Public Health.*
	1.b	Provided an up-to-date Air Quality Action Plan (AQAP), fully incorporated into LIP funding and core strategies.	*Y*	*Camden's Clean Air Action Plan 2016-18 is available to download at www.camden.gov.uk/AQ. It was jointly signed off by Cabinet Members with responsibility for environment, public health, and also signed off by Camden and Islington's Director of Public Health.*
2. Taking action	**2.a**	Taken decisive action to address air pollution, especially where human exposure and vulnerability (e.g. schools, older people, hospitals etc) is highest.	*Y*	*Camden has undertaken a number of projects in this area:* *Schools are offered travel planning advice, and funding has been made available for capital improvements to take place to improve local ait quality.*
	2.b	Developed plans for business engagement (including optimising deliveries and supply chain), retrofitting public buildings using the RE:FIT framework, integrating no engine idling awareness raising	*Y*	*Camden is a funding contributor to Cross River Partnership's Cleaner Air Better Business project, which provides AQ related support to businesses across the borough.* *Camden leads on the MAQF London Boroughs Consolidation Project, which seeks to optimise*

		into the work of civil enforcement officers		*deliveries to council buildings and also to the private sector.* *Camden also has a number of business Air Quality Champions, who have pledged to take action to improve local air quality.*
	2.c	Integrated transport and air quality, including by improving traffic flows on borough roads to reduce stop/start conditions	*Y*	*Air quality is a contributing factor to a number of interventions undertaken across the borough on Transport infrastructure. For example year-long trials on Torrington Place to improve traffic flow and encourage active transport.* *Camden has also installed mobile AQ monitors at a number of transport intervention sites to add to the suite of evaluation tools used by Transport when assessing the impacts of their schemes.*
	2.d	Made additional resources available to improve local air quality, including by pooling its collective resources (s106 funding, LIPs, parking revenue, etc).	*Y*	*Camden match funds projects that receive grant funding through LIP funding.*
3. Leading by example	**3.a**	Invested sufficient resources to complement and drive action from others	*Y*	*Camden has one full time air quality officer, with additional support from a number of other teams within Camden.*
	3.b	Maintained an appropriate monitoring network so that air quality impacts within the borough can be properly understood	*Y*	*All existing AQ monitors are maintained, with a new suite of mobile monitors being used to increase scope of monitoring.*
	3.c	Reduced emissions from council operations, including from buildings, vehicles and all activities.	*Y*	*By March 2016 Camden had achieved a 26% reduction in carbon emissions from our estate and operations from the 2009/10 baseline.* *All hire vehicles sourced now meet Euro V emissions standards. Camden has also announced that it will no longer purchase diesel vehicles for our own fleet.*
	3.d	Adopted a procurement code which reduces emissions from its own and its suppliers activities, including from buildings and vehicles operated by and on their behalf (e.g. rubbish trucks).	*Y*	*Camden's procurement policies have explicit targets for contractors relating to the emissions values of vehicles, with targets for continuous improvements also expected by contractors.*
4. Using the planning system	**4.a**	Fully implemented the Mayor's policies relating to air quality neutral, combined heat and power and biomass.	*Y*	*All approved planning applications must meet the Mayor's requirements relating to AQ neutral and CHPs*
	4.b	Collected s106 from new developments to ensure air quality neutral development, ***where possible***	*N*	*Camden does not collect s106 for this specific purpose.*
	4.c	Provided additional enforcement of construction and demolition guidance, with regular checks on medium and high risk building sites.	*Y*	*Camden requires new developments to adhere to London's best practice guidance for managing construction and demolition. Data is collected remotely on dust emissions at medium and high risk sites, and Environmental Health officers make site visits as appropriate and necessary.*
5. Integrating air quality into the public	**5**	Included air quality in the borough's Health and Wellbeing Strategy and/or the Joint Strategic Needs Assessment	*Y*	*Air Quality is an important section in both these documents. These can be found by visiting* https://www.camden.gov.uk/ccm/navigation/social-care-and-health/health-in-camden/health-

health system				decision-making/joint-strategic-needs-assessment/
6. Informing the public	**6.a**	Raised awareness about air quality locally	*Y*	*Camden promotes the use of airText, and undertakes specific projects aimed at raising awareness of air quality across the borough (i.e. relating to schools, hospitals, businesses etc.)*

2.1 Air Quality Action Plan Progress

Table K provides a brief summary of Camden's progress against the Air Quality Action Plan, showing progress made this year. New projects which commenced in 2015 are shown at the bottom of the table.

Table K. Delivery of Air Quality Action Plan Measures

Action	Detail	Progress
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 additional information on trends and changes over time.	• Completed on an annual basis (most recent available is USA completed in 2015)
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
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	• One of Camden's mobile monitors is online; two more to be added in August 2016
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 transport projects and interventions	• Completed / ongoing
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

Action	Detail	Progress
6. To update Camden's air quality web pages to make them more informative and accessible, and to include details of community projects and other forms of collaborative working where appropriate	Camden's AQ web pages to be undated to 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).	• New action for 2016
7. Camden will promote the adoption of fuel saving measures to residents through the Green Camden helpline, Well and Warm service, and other projects.	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 saving installations. Look at ways to improve the dissemination of information about energy efficiency to residents.	• Completed / ongoing
8. Camden will promote the adoption of fuel saving measures to businesses through the Camden Climate Change Alliance.	Energy saving advice is given to all Alliance members, with the number of members being a key indicator of success. Number of businesses becoming air quality champions. Ensure that best practice guidance documents for building owners and tenants are disseminated to businesses.	• Completed / ongoing • The Alliance now has 323 members as of April 2016
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.	• Camden has achieved a 26% reduction in carbon emissions from our estate and operations from the 2009/10 baseline

Action	Detail	Progress
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
11. Work with businesses to evaluate options for reducing dependence on 'black start' emergency diesel generators.	Work with businesses to trial alternatives to diesel standby generators and produce guidance for use by businesses across the borough.	• New action for 2016
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.	• Completed / ongoing • Funding has been received for a second round of this project through the Mayor's Air Quality Fund
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 that can be burned in commercial and domestic buildings. Ensure that relevant information is provided to existing building owners and developers to promote compliance.	• Completed / ongoing • Relevant information is available on Camden's website
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 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.	• Completed / ongoing • Camden's new Local Plan (due for adoption in late 2016) has been updated to further strengthen links between planning and air quality • New pro forma Construction Management Plan adopted
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 • Camden's new Local Plan (due for adoption in late 2016) has been updated to further strengthen links between planning and air quality • New pro forma Construction Management Plan adopted
16. Require developers to undertake an 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	Update planning policies where necessary to 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.	• Completed / ongoing • Camden's new Local Plan (due for adoption in late 2016) has been updated to further strengthen links between planning and air quality • New pro forma Construction Management Plan adopted

Action	Detail	Progress
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.		
17. Ensuring the enforcement of CHP and biomass air quality policies, and review the potential impacts of other types of heat and electricity generation.	Ensuring that developers select plant that meets the standards for emissions from 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.	• Completed / ongoing • Camden's new Local Plan (due for adoption in late 2016) has been updated to further strengthen links between planning and air quality • New pro forma Construction Management Plan adopted
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.	• Completed / ongoing • Camden has included this new policy in our new pro forma Construction Management Plan
19. Review and update Camden's air quality policies and guidance to developers where appropriate, and feed into updates of Camden's wider planning policies.	Conduct an assessment of policies and guidance to developers, including the CMP pro forma and air quality checklist, to ensure these documents represent best practice. Feed into future updates of Camden's wider planning policies and procedures, including the Camden Planning Guidance, Guide for Contractors Working in Camden, and Camden Environmental Minimum Requirements. Ensure that major developments undertake Health Impact Assessments at the application stage.	• Completed / ongoing • Camden's new Local Plan (due for adoption in late 2016) has been updated to further strengthen links between planning and air quality • New pro forma Construction Management Plan adopted

Action	Detail	Progress
20. Map air quality levels and local health prevalence and inequalities data with other indicators to support planning processes.	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.	• New action for 2016
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.	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. 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 regulations, and plans to minimise air quality impacts during the operational phase of HS2.	• Completed / ongoing • Camden has negotiated assurances related to a number of air quality issues, including: ○ 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 • Camden has appeared at the House of Commons Select Committee in December 2015 on a number of issues including air quality; Camden's House of Lords Select Committee appearance is expected to take place in September 2016
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.	• See point 21. above

Action	Detail	Progress
23. Continue to undertake measures to increase walking and cycling in Camden.	The Camden Transport Strategy maintains our commitment to sustainable transport and includes key objectives to: • 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. Camden will ensure these key objectives continue to be met. Work to leverage funding with LB Islington to implement a project aimed at encouraging increased cycling among residents through a cycle loan scheme.	• Completed / ongoing
24. Support the uptake of low emission and alternatively fuelled vehicles in the borough.	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, providing information and guidance to residents on vehicle options, and monitoring the uptake and usage of low emission vehicles in Camden.	• Camden has signed a new contract with the pan London provider of electric vehicle charging units with a view to dramatically improving the service in the next 12 months • 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.
25. Explore options to fund rapid charging electric vehicle infrastructure.	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 electric vehicle infrastructure.	• Camden is working with TfL to install rapid charging units at strategic locations in Camden; expected completion in 2016/17
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.	• Complete: Camden has introduced a new diesel surcharge on its residents parking permits beginning in March 2016
27. Engage with TfL and taxi and private hire vehicle operators to encourage and implement measures to reduce their emissions where practical.	This includes liaising with major business 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. Continued engagement with TfL to encourage TfL to undertake anti-idling enforcement of taxis.	• New action for 2016

Action	Detail	Progress
28. Continue to enforce anti-idling policies at idling hotspots and review areas where enforcement is undertaken.	Review current arrangements of both enforcement officers and signage to minimise idling at designated hotspots. This includes exploring the use of Fixed Penalty Notices. Liaise with businesses and developers to reduce where possible idling, and directly contact businesses who regularly have drivers idling. Work with other boroughs on 'Cleaner Air Action Days' throughout the year, where concerted efforts are made to reduce idling through volunteers and publicity materials.	• Completed / ongoing; Camden hopes to work on this more in 2016 as a partner of a new Mayor's Air Quality Fund project led by City of London that aims to further reduce idling at hotspots across London.
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.	• New action for 2016
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.	• New action for 2016

31. Increase the proportion of low emission vehicles in Camden's fleet, and reduce overall fuel usage.	In addition to Action 26, work to improve the 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	• Ongoing
		• Camden has stopped procuring any diesel vehicles for its own fleet
		• Additional measures to reduce overall fuel usage of Camden's fleet to include:
		  • Work on telemetrics and other 'smart' solutions to reduce vehicle miles.
		  • Driver training on fuel efficiency
		  • Implementing vehicle retrofits to reduce emissions from existing fleet.

32. Ensure that Camden's major vehicle procurement exercises deliver fuel savings and emissions reductions	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 Educational Needs and Adult Social Care teams are due to be replaced. Camden will ensure that these procurement exercises, in line with the council's green fleet policy, will result in the introduction of alternatively fuelled	• Ongoing

Action	Detail	Progress
	vehicles that will significantly reduce emissions from Camden's fleet.	
33. Install a permanent supply of Compressed Natural Gas at Camden's York Way depot for use by the council fleet and external operators.	Replace the trailer based supply of CNG with a permanent 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.	• Complete
34. Ensure that fleet operators and contractors working with Camden minimise their emissions where possible.	Ensure that Camden's Contractor Green Vehicle Fleet Standard is implemented where necessary in all council contracts and tenders. Work with contractors where appropriate to help them fulfil obligations and work towards lower emission fleets for use in Camden contracts and beyond.	• Complete – guidelines have been updated to help further reduce emissions from contractors
35. Maintain 'Gold' Fleet Operator' accreditation for Camden's fleet.	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 emissions. As well as environmental performance, FORS also focuses on safety and efficiency of fleet operations.	• Ongoing / complete
36. Ensure ongoing uptake of FORS bronze among Camden' via Procurement and Planning controls	Work related road risk (WRRR) procurement terms require contractors operating vehicles to achieve FORS bronze (along with other safety equipment). It is a planning requirement that fleet operators working on construction sites are 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.	• Ongoing / complete • Procurement guidelines to be further updated to help further reduce emissions from contractors
37. Continue to develop the London Boroughs Consolidation Centre (LBCC) to further reduce the number of deliveries servicing council and business premises in Camden.	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 buildings, while also bringing on board new businesses and premises to the scheme, potentially including the Camden Clinical Commissioning Group (CCG). This action includes undertaking a deliveries trial as part of the West End Project.	• This project received funding to be continued through the next three years through the Mayor's Air Quality Fund

Action	Detail	Progress
38. Work in partnership with schools by providing advice to encourage the adoption of travel plans and other policies to reduce transport emissions.	Work with schools, both through the planning process for new developments and through ongoing partnerships, to encourage the uptake of policies to reduce transport emissions and improve the health and wellbeing of staff and pupils. 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.	• Ongoing / complete
39. Work in partnership with businesses by providing advice to encourage the adoption of travel plans, consolidated delivery plans, and other policies to reduce transport emissions.	Continue to provide leadership and share best practice by promoting benefits of freight consolidation to businesses. 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.	• Ongoing – support this year has been given to the Fitzrovia Partnership BID in this area
40. Engage with railway companies to tackle both indoor air quality issues in train stations located in Camden, and work to mitigate the impacts of emissions from diesel trains.	Work with major station and train operators to look at ways to improve indoor air quality at Camden's main stations. Engage with train operators to work towards lower emission train engines, and to explore options for mitigating unavoidable emissions from diesel trains.	• New action for 2016
41. Explore potential for a Camden specific or central London wide 'car free day'.	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	• New action for 2016
42. Continue to disseminate up to date information about air quality and investigate new methods of informing the public about air pollution levels.	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. Investigate the potential for new methods of disseminating air quality information, either through better utilising existing communication channels or through new means of contacting the public.	• Ongoing – this is a priority for the next year • Camden undertook a series of site visits and awareness raising events in 2015 through the Mayor's Air Quality Fund project Breathe Better Together.
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	• Ongoing – we are also looking to prioritise this over the next year

Action	Detail	Progress
	appropriate in messaging of other air quality awareness raising projects.	
44. Work with public health and council resilience teams to ensure that vulnerable populations are better aware of high pollution days and short term actions they can take to reduce their exposure	Specific targeting of services such as airText to vulnerable residents. Working with CCG and doctors' surgeries to further improve dissemination of information about high pollution days.	• Ongoing – we are also looking to prioritise this over the next year • Camden sent out a series of alerts and warnings raising awareness of air pollution events in 2015 through the Mayor's Air Quality Fund project Breathe Better Together.
45. Continue to seek funding for air quality projects.	Continue to work with partners and funding bodies to identify and apply for funding to implement air quality projects.	• Ongoing
46. Disseminate the results and best practice from current and completed projects to further improve awareness of air quality.	Ensure that final project reports, case studies, toolkits, and any other final project outputs are disseminated to interested parties in Camden and beyond. This Action also includes endeavouring to learn from other final outputs from relevant projects undertaken by other local authorities and organisations.	• Ongoing
47. Provide support for 'citizen science' projects being undertaken in the borough.	Provide support and guidance where appropriate to 'citizen science' 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.	• New action for 2016
48. Increase awareness of air pollution in and encourage modal shift away from cars in schools through educational projects and lessons within the national curriculum.	Work in partnership with an educational provider and other London boroughs to implement a project in Camden's 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.	• New action for 2016
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 statutory reporting.	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 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.	• New action for 2016

Action	Detail	Progress
50. Director of Public Health to have responsibility for ensuring their Joint Strategic Needs Assessment (JSNA) has up to date information on air quality impacts on the population	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 working between air quality and public health.	• Complete
51. Work with Public Health to strengthen engagement with Camden's Clinical Commissioning Group and Camden's GP surgeries.	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. This Action intends for a project to be implemented that will involve close working with Camden's CCG and GPs to increase awareness of air quality among health professionals and patients visiting GP surgeries.	• New action for 2016
52. Work with Business Improvement Districts and other business organisations on joint projects and interventions to increase awareness of air quality.	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 emissions, and look to work with new businesses.	• Ongoing / complete • In particular Camden has worked with the Fitzrovia BID on air quality in 2015 • Camden is a funding partner of the Cleaner Air Better Business project, run by the Cross River Partnership and funded through the Mayor's Air Quality Fund
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.	• New study has been completed looking at green infrastructure opportunities in Somers Town. This will be rolled out to other parts of the borough in 2016
54. Submit an application for a Low Emission Neighbourhood from the Mayor's Air Quality Fund, that could have a transformative impact on air quality in Somers Town.	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. Should the application be successful, this Action includes implementing a LEN from the projected project start date in April 2017. 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 maximised as far as possible.	• Complete

Action	Detail	Progress
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 • A best practice case study pack was produced as part of Camden's National Air Quality Award winning project 'Cleaner Air for Great Ormond St Hospital'
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.	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.	• Ongoing – proposed timescales are for an event to take place in Autumn 2016
57. Continue to support measures introduced by the Mayor of London and national government to improve air quality.	This includes working in joint projects, attending meetings, responding to consultations, and taking an active role in air quality management in London.	• Ongoing
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 • Camden also lobbied the Mayor of London in January 2015 alongside major private sector partners and health bodies to request more action be taken to reduce emissions on Euston Road
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 further reduce air pollution.	While supporting the principle of the ULEZ, Camden has repeatedly argued for that the scheme could be geographically 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.	• Ongoing
60. Lobby national government to provide further financial and strategic support for local authorities to improve air quality, and lobby for further action on national policies on diesel vehicles such as changes to road tax and a national diesel scrappage scheme.	This work could be undertaken in conjunction with other London boroughs, the GLA, or with local partners and major stakeholders. Progress towards this action could be made through direct lobbying, through meetings and other forums, or through official responses to consultations.	• Ongoing

Action	Detail	Progress
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.	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. 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.	• Ongoing • Camden also lobbied the Mayor of London in January 2015 alongside major private sector partners and health bodies to request more action be taken to reduce emissions on Euston Road

3. Planning Update and Other New Sources of Emissions

The major update Camden can make in this area is with regards High Speed 2, which is expected to receive Royal Assent at the end of 2016 and therefore major works with begin in the Euston area of Camden in 2017.

Preparatory works have already begun in Euston and in other parts of the borough where vent shafts will be located.

HS2 will result in a period of a minimum of 17 years of construction work in Camden. Taken as a whole, it will be a major source of emissions in the borough: not just dust and PM emissions from construction sites, but also NOx related emissions from construction vehicles on Camden's road network.

While Camden has received a number of assurances from HS2 Ltd. aimed at minimising the impact of the scheme on Camden's air quality, the project will clearly have an adverse impact on Camden's air quality.

3.1 New or significantly changed industrial or other sources

No new sources identified.