

Westminster City Council Air Quality Annual Status Report for 2017

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This report provides a detailed overview of air quality in Westminster during 2017. It has been produced to meet the requirements of the London Local Air Quality Management statutory process¹.

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

CONTENTS

Abbreviations	3
1. Air Quality Monitoring	5
1.1 Locations	5
1.2 Comparison of Monitoring Results with AQOs	5
2. Action to Improve Air Quality	10
2.1 Air Quality Action Plan Progress	10
3. Planning Update and Other New Sources of Emissions	20
3.1 New or significantly changed industrial or other sources	21
Appendix A Details of Monitoring Site QA/QC	21
A.1 Automatic Monitoring Sites	22
A.2 Diffusion Tube Quality Assurance / Quality Control	Error! Bookmark not defined.
A.3 Adjustments to the Ratified Monitoring Data	22
Appendix B Full Monthly Diffusion Tube Results for 2017	Error! Bookmark not defined.

Tables

Table A. Summary of National Air Quality Standards and Objectives	4
Table B. Details of Automatic Monitoring Sites for 2017	5
Table C. Details of Non-Automatic Monitoring Sites for 2017	5
Table D. Annual Mean NO ₂ Ratified and Bias-adjusted Monitoring Results ($\mu\text{g m}^{-3}$)	6
Table E. NO ₂ Automatic Monitor Results: Comparison with 1-hour Mean Objective	7
Table G. PM ₁₀ Automatic Monitor Results: Comparison with 24-Hour Mean Objective	8
Table H. Annual Mean PM _{2.5} Automatic Monitoring Results ($\mu\text{g m}^{-3}$) <i>(if available, if not this section can be deleted)</i>	9
Table I. SO ₂ Automatic Monitor Results: Comparison with Objectives <i>(if available, if not this section can be deleted)</i>	9
Table J. Delivery of Air Quality Action Plan Measures	10
Table K. Planning requirements met by planning applications in <i>Borough Name</i> in 2017	20
Table L. Short-Term to Long-Term Monitoring Data Adjustment	22
Table M. 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	Date¹
Nitrogen dioxide - NO ₂	200 µg m ⁻³ not to be exceeded more than 18 times a year	1-hour mean	31 Dec 2005
	40 µg m ⁻³	Annual mean	31 Dec 2005
Particles - PM ₁₀	50 µg m ⁻³ not to be exceeded more than 35 times a year	24-hour mean	31 Dec 2004
	40 µg m ⁻³	Annual mean	31 Dec 2004
Particles - PM _{2.5}	25 µg m ⁻³	Annual mean	2020
	Target of 15% reduction in concentration at urban background locations	3 year mean	Between 2010 and 2020
Sulphur Dioxide (SO ₂)	266 µg m ⁻³ not to be exceeded more than 35 times a year	15 minute mean	31 Dec 2005
	350 µg m ⁻³ not to be exceeded more than 24 times a year	1 hour mean	31 Dec 2004
	125 µg m ⁻³ not to be exceeded more than 3 times a year	24 hour mean	31 Dec 2004

Note: 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 2017

Site Name	X (m)	Y (m)	Site Type	In AQMA?	Distance from monitoring site to relevant exposure (m)	Distance to kerb of nearest road (N/A if not applicable) (m)	Inlet height (m)	Pollutants monitored	Monitoring technique
Marylebone Road	528121	182016	Kerbside	Y	0m	1.5m	2.5m	NO ₂ ; PM ₁₀ ; PM _{2.5} ; SO ₂	Chemiluminescent FDMS
Horseferry Road	529778	178960	Urban Background	Y	0m	n/a	3m	NO ₂ ; PM ₁₀	Chemiluminescent FDMS
Oxford Street	528276	181065	Kerbside	Y	0m	1m	1.5m	NO ₂	Chemiluminescent
Strand	511998	167150	Roadside	Y	0m	2.5m	1.8m	NO ₂	Chemiluminescent
Covent Garden	530444	167150	Urban Background	Y	0m	n/a	2m	NO ₂	Chemiluminescent

Please note: Westminster's Victoria site monitor for 2017 was not representing relevant exposure due to a temporary relocation resulting from on-going construction activity. Results are therefore not reported. A permanent site has now been established and results will be reported in future ASRs.

Table C. Details of Non-Automatic Monitoring Sites for 2017

There are no non-automatic monitoring sites for 2017

1.2 Comparison of Monitoring Results with AQOs

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

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

Site ID	Site type	Valid data capture for monitoring period % ^a	Valid data capture 2017 % ^b	Annual Mean Concentration (µg m ⁻³)						
				2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Marylebone Road	Automatic	98	98	<u>97</u>	<u>94</u>	<u>85</u>	<u>94</u>	<u>88</u>	<u>87</u>	<u>84</u>
Horseferry Road	Automatic	83	83	41	39	45	46	39	37	36
Oxford Street	Automatic	98	98	n/a	n/a	<u>135</u>	<u>143</u>	<u>135</u>	<u>87</u>	<u>72</u>
Strand	Automatic	86	86	n/a	n/a	n/a	n/a	<u>122</u>	<u>101</u>	<u>92</u>
Covent Garden	Automatic	100	41	n/a	n/a	n/a	n/a	n/a	n/a	37 ^d

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

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

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

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

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

^d See note in Appendix A on data from the Covent Garden site

NO₂ levels continue to gradually reduce across the City. However exceedances of the annual mean are still recorded at multiple sites. There has also been some changes to WCC’s monitoring network; in particular, the Victoria monitoring site results have not been included in this year’s ASR due to a temporary relocation of the monitor due to nearby construction work.

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2017 % ^b	Number of Hourly Means > 200 µg m ⁻³						
			2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Marylebone Road	98	98	217	122	59	60	56	49	38
Horseferry Road	83	83	0	0	0	0	0	0	0
Oxford Street	98	98	n/a	n/a	1502	1532	1391	168	1
Strand	86	86	n/a	n/a	n/a	n/a	284	235	26
Covent Garden	100	41	n/a	n/a	n/a	n/a	n/a	n/a	0

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 2017 % ^b	Annual Mean Concentration (µg m ⁻³)						
			2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Marylebone Road	99	99	41	38	33	31	30	29	27
Marylebone Road FDMS	97	97	38	31	29	26	24	26	24

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2017 % ^b	Annual Mean Concentration ($\mu\text{g m}^{-3}$)						
			2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Horseferry Road	93	93	19	18	n/a	19	17	17	17

Notes: Exceedance of the PM₁₀ annual mean AQO of 40 $\mu\text{g m}^{-3}$ 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%

Westminster continues to meet all objectives for PM10 at all monitoring stations.

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2017 % ^b	Number of Daily Means > 50 $\mu\text{g m}^{-3}$						
			2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Marylebone Road	99	99	73	48	29	22	13	15	12
Marylebone Road FDMS	97	97	57	23	21	14	10	14	8
Horseferry Road	93	93	8	10	n/a	8	3	6	6

Notes: Exceedance of the PM₁₀ short term AQO of 50 $\mu\text{g m}^{-3}$ over the permitted 35 days per year or where the 90.4th percentile exceeds 50 $\mu\text{g m}^{-3}$ 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%

Westminster continues to meet all objectives for PM10 at all monitoring stations.

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 2017 % ^b	Annual Mean Concentration ($\mu\text{g m}^{-3}$)						
			2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c	2017 ^c
Marylebone Road FDMS	96	96	25	22	20	18	16	16	15

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%

Westminster continues to meet all objectives for PM2.5 at the Marylebone Road FDMS site.

Table I. SO₂ Automatic Monitor Results: Comparison with Objectives

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2017 % ^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 > $125 \mu\text{g m}^{-3}$
Marylebone Road	99	99	0	0	0

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

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

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

2. Action to Improve Air Quality

2.1 Air Quality Action Plan Progress

Table J provides a brief summary of Westminster's progress against the Air Quality Action Plan, showing progress made this year. New actions which commenced in 2017 are shown at the bottom of the table – these are designated as NEW1, NEW2 etc. Westminster will be producing a new Air Quality Action Plan in late 2018, which will be reported on in full in future ASRs.

Table J. Delivery of Air Quality Action Plan Measures

Measure	Action	Progress
TRAN 1	Work with TfL to investigate options for reducing through-traffic in specific parts of Westminster, such as Oxford Street and Marylebone Road, and to examine the options for reducing air pollution at hotspots.	Westminster's Major Schemes Programme has been developed in consultation with a wide range of stakeholders that include TfL, land owners, Business Improvement Districts (BIDs) and developers. Plans for the transformation of Oxford Street were publically consulted on twice in 2017. Large concerns remain around the air quality impacts of the displacement of traffic that would be caused by the reduction of through traffic on Oxford Street. The council remains committed to working with TfL and the Mayor of London to improve the Oxford Street area.
TRAN 2	Examine potential options and implement actions to minimise pedestrian exposure to high levels of pollution.	As per TRAN1. In addition, public realm projects such as that for Aldwych and the Strand are progressing, which include planned pedestrianisation to reduce pedestrian exposure to pollution.

		Smaller scale projects which involve road closures to reduce pedestrian exposure to pollution such as 'school streets' are also being investigated.
TRAN 3	Support car clubs with particular emphasis on the inclusion of low emission vehicles in the fleet.	<p>There are currently 185 car club bays located throughout the City. Westminster has one of the largest EV car club fleets operated by any Local Authority in the UK.</p> <p>In 2017 a new car clubs contract tender was put out. This tender, which also involved a new floating car club operating model, included requirements for the inclusion and continuing expansion of low emission vehicles. The details of these new contracts and the expected air quality improvements will be reported on in future ASRs.</p>
TRAN 4	Continue to promote and provide infrastructure for electric and low emission vehicles.	Westminster's EV charging network is one of the largest in the country, with 115 on street charging points. This includes lamp post column charging points, with plans for rapid charging units to be added to the network.
TRAN 5	Continue to investigate ways in which freight consolidation can be developed and investigate and develop ways to reduce congestion from delivery vehicles.	Westminster manages freight consolidation in a number of ways, including through Delivery Service Plans as part of the Clean Air Better Business project (see COMM7); low emission fleet policies (see TRAN9 and TRAN10), through our planning policies, and through innovative projects and research including autonomous delivery vehicles.
TRAN 6	Support and undertake local communication campaigns to raise awareness of the benefits of fuel efficient and smoother driving and evaluate the possibility of supporting providers of fuel efficient driver training through communication to Westminster residents.	Fuel Efficient driver training was provided in 2017 via the Cross River Partnership run project 'Cleaner Air Better Business'.
TRAN 7	Support schemes to encourage people to use other forms of sustainable travel such as walking and cycling.	In 2017 we introduced a diesel surcharge in F Zone (Marylebone, Fitzrovia & Hyde Park) as part of a package of measures to try and address the issue of poor air quality within the Low Emission Neighbourhood. The trial set a 50% surcharge on all diesel vehicles manufactured before 2015 using Pay to Park bays. The results of the trial to date have seen a reduction of over 10% in the number of vehicles paying to park in F zone versus last year, and the percentage of pre-2015 diesels paying to park has reduced by more than 14%. We plan to extend the surcharge further across the City if there is a desire amongst residents to do so.

		<p>In 2017/18 undertook the groundwork for new Walking Strategy and a new Active Westminster Strategy, both of which will shape our work in this area over the next 5 years. Full details of these Strategies will be include in next year's ASR.</p> <p>A number of other council policies encourage the uptake of walking and cycling: this includes our Code of Construction Practice and planning polices; Dr Bike and cycle to work hire schemes; and the council provides free cycle training for all abilities.</p>
TRAN 8	Support and promote the implementation of travel plans for schools and businesses.	<p>As per last year's ASR, within the school travel plan and STARS framework Westminster schools have undertaken a wide variety of activities, including: Cycle training, Walking trips, child pedestrian training, Curriculum lessons, Travel training, Participating in TfL's Travel Party Scheme, Sponsored walks/runs, Promotion of school travel plans via school websites, parent evenings, reception desks and more, Car free days, Cleaner Air 4 Schools Project in 2012, The Big Pedal – Cycling competition held in March 2015 by Sustrans, Bike It Plus, Walk to School Week, SEN Travel training, theatre education programmes and local/national competitions.</p> <p>20mph zones have been introduced at just under 40 WCC schools to improve road safety and reduce pollution. School play streets have also been introduced.</p> <p>Increasing the take up of cycling to and from school is a key objective of the Council's Cycling and Walking Strategy.</p>
TRAN 9	Ensure the use of low emission vehicles within the Westminster City Council fleet and those of its contractors and regularly review Fleet Policy and fuel hierarchy to ensure best possible effects for air quality.	<p>Westminster's 'Green Fleet' policy, most recently updated in 2008, sets a procurement fuel hierarchy prioritising zero emission vehicles and vehicle emissions standards requirement the latest euro standard vehicles be used. Green fleet policy was integrated into the Council Procurement code in 2016. A new green fleet policy is being drawn up and will be adopted and reported in next year's ASR.</p>
TRAN 10	Compel contractors and associates to reduce air pollution and carbon emissions through tender and contract specification.	<p>The Fleet Policy has been incorporated into the Procurement Policy. External Contractors provide, where relevant environmental data on vehicle used on contract and report on fuel use emissions. The lower emissions will score higher during tender evaluations. Examples of this include responsible procurement inclusions in the Everyone Active contract (resulting in carbon and pollution savings at WCC run leisure centres) and WCC's</p>

		parking debt management contract, which includes green fleet commitments and air quality related volunteering commitments.
TRAN 11	Continue to commit to the provision of Safe and Fuel Efficient Driving (SAFED) training for fleet drivers and evaluate the possibility of: extending Safe and Fuel Efficient Driving (SAFED) training to the City Council's contractors' fleet drivers.	This action is complete: Safe and Fuel Efficient Driving Training (SAFED) has been rolled out for Council drivers.
TRAN 12	Undertake a review of the options and resource and emissions implications of utilising 'no idling' legislation to help improve local air quality.	<p>In 2017, Westminster commenced trialling PCN enforcement for unnecessary idling to hopefully provide a more efficient and effective process to the enforcement of vehicle idling. In all instances where the vehicle is attended, drivers of idling vehicles are asked to switch off their engines or move on, and only where they refuse, and then only after the Marshal has given the idling vehicle a full one minute's constant observation, is issuing a PCN considered. This change has now been made permanent across the city.</p> <p>Westminster has created and implemented a dedicated communications campaign to engaged the local community and embed no-idling behaviour change: #dontbeidle. This has been conducted using traditional media, social media and Air Marshall events; MPs and celebrity endorsement; and a dedicated #DontBeldle website. The overall aim is to change behaviour by encouraging written commitment to the pledge from residents and core driver audiences. As of the end of April 2018 we had 9,300 #dontbeidle pledge signatories, well ahead of a pledge goal to have 10,000 sign ups by the end of 2018. The campaign has received national press coverage and recognition.</p>
TRAN 13	Communicate the 'no idling' message to parked coach drivers on Westminster's streets by installing signs in coach parking bays on borough managed roads.	Majority of work in this area is outlined under TRAN12. The #dontbeidle campaign has moved towards targeting fleet and coach operators in the city; this will be reported on in next year's ASR.
TRAN 14	Work with the Mayor to develop procedures to press the operator companies of vehicles found with idling	Majority of work in this area is outlined under TRAN12. The #dontbeidle campaign has moved towards targeting fleet and coach operators in the city; this will be reported on in next year's ASR.

	engines to take enforcement action on the drivers of those vehicles.	
TRAN 15	Improve public communications on air quality and no-idling messages by including information on the impacts of idling on the Council website and in Council publications.	Incorporated in the borough-wide idling enforcement detailed in TRAN12 and COMM 4
TRAN 16	Write to the Minister for Transport with responsibility for rail services and to local MP's setting out the air quality and other benefits that would be achieved by the earliest possible electrification of rail services from Marylebone seeking information on the likely timescales for this.	Action complete: no further action required.
TRAN 17	Maintain dialogue with TOC's to review opportunities for improvements in reducing emissions.	This is an ongoing process, including liaising with Business Improvement Districts who host train terminals.
TRAN 18	Communicate with government Ministers to make the case for stronger control of the environmental effects of rail services through existing mechanisms.	Action complete: no further action required.
TRAN 19	Raise with TfL and the GLA the importance of appropriate environmental impact assessments within consultation exercises when changes in rail services are proposed (e.g. High Speed Rail 2), and to consult the City Council respectively.	Action complete: no further action required.

DEV 1	<p>Require developers to undertake an Air Quality Assessment (AQA) where a development may adversely affect local air quality and require developers to submit an air pollution abatement and mitigation plan where an air quality assessment shows that a new development is likely to have an adverse impact on air quality, or expose new air quality sensitive receptors to poor air quality.</p>	<p>Westminster planning policy is in accordance with the London Plan and states ‘The council will require a reduction of air pollution, with the aim of meeting the objectives for pollutants set out in the national strategy. Developments will minimise emissions of air pollution from both static and traffic-generated sources.’ As part of this, WCC requires developers to undertake an Air Quality Assessment (AQA) where a development may have negative air quality impacts, either on the local environs or by bringing new receptors into an area of poor air quality. Where the AQA shows that a new development is likely to have an adverse impact on air quality or sensitive receptors the developer will submit an air pollution abatement and mitigation plan. Planning permission will be refused unless adequate mitigation measures are adopted to reduce the air quality impact or exposure to acceptable levels.</p> <p>Work is continuing on Westminster’s new local plan, which will further strengthen planning requirements’ safeguarding on air quality throughout the city. All comments in this section related to DEV actions should be viewed in light of the city’s ongoing work in developing its new local plan.</p> <p>Updates on Westminster’s local plan and also on the first neighbourhood plans to be examined and adopted in the city will be included in next year’s ASR.</p>
DEV 2	<p>Strengthen and further develop air quality policy in the emerging local planning documents in order to develop transparent air quality assessment methodology for planning applications and support planning officers in the assessment of those applications.</p>	<p>WCC’s draft local plan, which has been developed throughout this ASR year, includes new policies to manage and mitigate air, noise and light pollution, as well as construction impacts, construction waste and contaminated land. The local plan will be consulted on later this year and it is expected that full details on new policies will be included in next year’s ASR.</p>
DEV 3	<p>Include air quality requirements in Sustainable Design SPD to help reduce unwanted emissions from boilers through improved building efficiency, boiler efficiency, using renewable energy and supplying energy efficiently.</p>	<p>The SPD is on hold in lieu of our ongoing consultation and local plan development. No further action required at this point. It is expected that the SPD will be complete and reported on in next year’s ASR.</p>

DEV 4	Protect decentralised energy networks in order to provide efficient energy production and to minimise emissions from combustion.	Westminster planning policy states 'Infrastructure that is or has previously been in use as part of a district heat network will be protected. Major developments should be designed to link to and extend existing heat and energy networks in the vicinity.' As part of our emerging local plan, which will cover the next 15-20 years, the Council is developing new policies on (decentralised) energy. In 2017, Church Street District Heating Scheme was awarded seed funding from Government's Heat Networks Investment Project for the development of its CHP networks throughout this major regeneration site.
DEV 5	Adopt policy which ensures biofuel combustion does not negatively impact on local air quality.	No known biomass development exists in Westminster.
DEV 6	Prioritise low polluting transport options in development.	Council planning policy exists for promoting the use of: car clubs, electric and alternative fuel vehicles, cycling, and cycling infrastructure.
DEV 7	Require major site developers to comply with the Westminster Code of Construction Practice and the GLA's 'The Control of Dust and Emissions from Construction and Demolition: Best Practice Guidance' to all development sites.	Since an adoption in 2016, Westminster's Code of Construction Practice applies to all major developments as well as all basement excavations. This requires sites to engage with residents, submit information, and adhere to the best practice contained in the CoCP in order to minimise the environmental impacts of construction projects within Westminster. The new CoCP requires developments to comply with the GLA's 'The Control of Dust and Emissions from Construction and Demolition: Best Practice Guidance' and aims to provide important background information on managing construction, and sets out our requirements for: General site operations; Liaison with the public; Employment and skills; Traffic and transport (including cycle safety); Noise and vibration; Dust and air pollution; Waste management; Water pollution and flood risk; Urban ecology; Heritage assets; Protection of existing installations. The Code has been applied since the beginning of September 2016, with a dedicated team of CoCP staff having been recruited, funded by the new fees as part of the Code.
COMM 1	Publish high quality air quality information via the Westminster City Council website, and investigate new methods of informing and communicating with the public, especially vulnerable groups.	Westminster continues to publish high quality air quality information via the Westminster City Council website. This includes specific information for schools (including teachers and parents) and for those more vulnerable to pollution. WCC continues to support and promote airTEXT to residents. Schools, care homes and GP surgeries in the city also receive pollution alerts from King's College London on behalf of the GLA.

COMM 2	Monitor air pollution across the City and periodically review the air quality monitoring network.	Air quality in 2017 was monitored at 6 sites across Westminster: Marylebone Road, Horseferry Road, Oxford Street, Victoria BID, Strand (Northbank) and Covent Garden. Victoria BID was operating temporarily as a re-location of the old Victoria Palace Theatre site until 20th September 2017, but it was not representative of relevant public exposure and results are therefore not reported. A permanent site has now been established in Victoria and results will be reported in future ASRs. The Covent Garden site was re-opened in August 2017.
COMM 3	Monitor PM _{2.5} air pollution across the City and periodically review our air quality monitoring network.	PM _{2.5} is monitored at 1 site in Westminster, Marylebone Road.
COMM 4	Undertake communication campaigns to raise awareness of air pollution health impacts and minimise exposure to pollution, where possible linking with other complementary initiatives.	As outlined in TRAN12, Westminster has created and implemented a dedicated communications campaign to engaged the local community and embed no-idling behaviour change. This has been conducted using traditional media, social media and Air Marshall events; MPs and celebrity endorsement; and a dedicated #DontBeldle website. The overall aim is to change behaviour by encouraging written commitment to the pledge from residents and core driver audiences.
COMM 5	Foster links with Clinical Commissioning Groups (CCGs) and Health Department to aid public communication and understanding of how air pollution affects health.	Westminster has worked with the city's Public Health unit to help the creation of an Air Quality and Public Health factsheet, designed to aid council officers and Public Health officers in understanding the impacts and of air pollution on health and the links between policy and pollution levels.
COMM 6	Continue to support and raise awareness about the AirTEXT air quality information service.	Westminster continues to support airTEXT and promotes its service via our website and through other publications.
COMM 7	Undertake business engagement to raise awareness of air quality and encourage reduction in emissions associated to business transport and buildings.	Westminster is a partner in Cross River Partnership's Clean Air Better Business programme supports Business Improvement Districts (BIDs) to increase awareness of air quality issues amongst their member businesses and facilitate business-led action to improve air quality. The Clean Air Better Business programme is funded by business improvement districts, boroughs including Westminster City Council and the Mayor's Air Quality Fund. Westminster (partnered with Camden) also received Defra grant funding in 2017 to conduct a complementary project to Clean Air Better Business focusing on SME businesses. This project is being delivered by Cross River Partnership.

COMM 8	Raise awareness of air quality within Westminster schools to increase understanding of issues, encourage more sustainable travel modes and minimise exposure.	<p>We work closely with Westminster schools to encourage more sustainable travel modes and minimise exposure. As outlined in last year's ASR, some of the initiatives/actions that have been completed are as follows: Cycle training, Walking trips, Curriculum lessons, Travel training, Participating in TfL's Travel Party Scheme, Sponsored walks/runs, Promotion of school travel plans via school websites, parent evenings, reception desks and more, Car free days, Cleaner Air 4 Schools Project in 2012, anti-idling campaigns, parking engagement visits and presentations, school coach consultations, The Big Pedal – Cycling competition held in March by Sustrans, Bike It Plus, Walk to School Week, SEN Travel training, theatre education programmes and local/national competitions.</p> <p>20mph zones have also been introduced at 38 Westminster schools.</p> <p>WCC has also suggested the Mayor of London's schools air quality audits programme, with 4 schools receiving audits through this scheme.</p>
NEW 1	Deliver successful Low Emission Neighbourhood projects	<p>In 2017 Westminster continued to implement projects through its £1m match funded Marylebone Low Emission Neighbourhood. Projects utilised in the LEN are expounded on throughout this action plan update (e.g. TRAN7, TRAN12 and COMM8); additional measures include parklets, urban realm improvements, and air quality for business audits. Westminster is also supporting the Northbank Business Improvement District in its Business LEN. Westminster is the only London borough to have received GLA funding for two LEN projects.</p>
NEW 2	Discourage the use of polluting diesel vehicles throughout the city.	<p>A standard Resident parking permit parking in Westminster currently costs £145 per annum. To encourage adoption of lower emission vehicles amongst Residents we offer a discount to vehicles under 1200cc where permits cost £103 per annum, and eco vehicles who receive free permits. We also have a car club giving options to residents wanting to give up car ownership who may still need the occasional use of a car.</p> <p>In 2017 we introduced a diesel surcharge in F Zone (Marylebone, Fitzrovia & Hyde Park) as part of a package of measures to try and address the issue of poor air quality within the Low Emission Neighbourhood. The trial set a 50% surcharge on all diesel vehicles manufactured before 2015 using Pay to Park bays. The results of the trial to date have seen a reduction of over 10% in the number of vehicles paying to park in F zone versus last year, and the percentage of pre-2015 diesels paying to park has reduced by more than</p>

		14%. We plan to extend the surcharge further across the City if there is a desire amongst residents to do so.
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3. Planning Update and Other New Sources of Emissions

Table K. Planning requirements met by planning applications in City of Westminster in 2017

Condition	Number
Number of planning applications where an air quality impact assessment was reviewed for air quality impacts	63 ¹
Number of planning applications required to monitor for construction dust	34 ²
Number of CHPs/Biomass boilers refused on air quality grounds	0
Number of CHPs/Biomass boilers subject to GLA emissions limits and/or other restrictions to reduce emissions	3 ³
Number of developments required to install Ultra-Low NO _x boilers	0
Number of developments where an AQ Neutral building and/or transport assessments undertaken	63 ¹
Number of developments where the AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	1
Number of planning applications with S106 agreements including other requirements to improve air quality	43
Number of planning applications with CIL payments that include a contribution to improve air quality	0
NRMM: Central Activity Zone and Canary Wharf Number of conditions related to NRMM included. Number of developments registered and compliant. 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.	73 conditions included ⁴ 83 registered at www.nrmm.london Data not currently available on compliance ⁵
NRMM: Greater London (excluding Central Activity Zone and Canary Wharf) Number of conditions related to NRMM included. Number of developments registered and compliant. Please include confirmation that you have checked that the development has been registered at www.nrmm.london and that all NRMM used on-site is compliant with Stage IIIA of the Directive and/or exemptions to the policy.	5 conditions included ⁴ 26 registered at www.nrmm.london Data not currently available on compliance ⁵

¹This refers to the number of major planning applications assessed by Environmental Health Officers. The number of major applications appears to have dropped since the previous ASR. Further work is underway to improve data recording for future years.

²The requirement to monitor construction dust is secured through compliance with the Council's Code of Construction Practice for major developments.

³ These figures represent the number referred to in the application description and the planning officer reports. Work is underway to improve data recording for future years. We confirm that all CHP units are required to meet GLA limits.

⁴The requirement to comply with NRMM is secured through compliance with the Council's Code of Construction Practice for all applicable developments. This includes ensuring that developments are registered on www.nrmm.london We have 3 Crossrail sites and 1 Thames Tideway site in the borough which are all exempt from having to submit information onto the NRMM register.

⁵A revised audit programme has been implemented to ensure that NRMM on construction sites accords with the details on the nrmm.london website, and is compliant with the relevant Stage of the Directive. Details will be reported in future ASRs.

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

Horseferry Road and Marylebone Road monitoring sites are AURN sites and therefore have AURN QA/QC procedures. For all other sites monitoring data is collected, validated and ratified by ERG, King's College London. QA/QC procedures are similar to those of the AURN network. Calibrations are carried out by a City of Westminster Local Site Operator on a fortnightly/monthly schedule, depending on the site type.

PM₁₀ Monitoring Adjustment

TEOM data has been adjusted using the volatile correction method (VCM).

A.2 Adjustments to the Ratified Monitoring Data

Short-term to Long-term Data Adjustment

The monitoring site at Covent Garden began operation in 2017 on the 3rd August and its annual data capture was 41%. Therefore the mean has been annualised using the methodology outlined in LLAQM.TG(16) before being compared to annual mean objectives.

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

Site	Site Type	Annual Mean ($\mu\text{g}/\text{m}^3$)	Period Mean ($\mu\text{g}/\text{m}^3$)	Ratio
Horseferry Road	Urban Background	36	35	1.03
Bloomsbury	Urban Background	38	39	0.97
North Kensington	Urban Background	33	33	1
Streatham Green	Urban Background	29	33	0.88
Average				0.97