

Westminster City Council
Air Quality Annual Status Report for 2016
Date of publication: May 2017



This report provides a detailed overview of air quality in the City of Westminster during 2016. 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.....	6
2. Action to Improve Air Quality.....	11
2.1 Air Quality Action Plan Progress.....	13
3. Planning Update and Other New Sources of Emissions.....	28
3.1 New or significantly changed industrial or other sources.....	30
Appendix A Details of Monitoring Site QA/QC.....	31
A.1 Automatic Monitoring Sites.....	31

Tables

Table A. Summary of National Air Quality Standards and Objectives.....	4
Table B. Details of Automatic Monitoring Sites for 2016.....	5
Table C. Details of Non-Automatic Monitoring Sites for 2016.....	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.....	9
Table H. Annual Mean PM _{2.5} Automatic Monitoring Results ($\mu\text{g m}^{-3}$).....	10
Table I. SO ₂ Automatic Monitor Results for 2016: Comparison with Objectives.....	10
Table J. Commitment to Cleaner Air Borough Criteria.....	11
Table K. Delivery of Air Quality Action Plan Measures.....	15
Table L. Planning requirements met by planning applications in Westminster 2016.....	30

Abbreviations

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

Table A. Summary of National Air Quality Standards and Objectives

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

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

1. Air Quality Monitoring

1.1 Locations

Table B. Details of Automatic Monitoring Sites for 2016

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	18201	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 _{2.5}	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

The Victoria Site is currently not representing relevant exposure due to temporary relocation resulting from on-going construction activity. Results are, therefore, not reported.

Table C. Details of Non-Automatic Monitoring Sites for 2016

There are no non-automatic monitoring sites for 2016

1.2 Comparison of Monitoring Results with AQOs

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 2016 % ^b	Annual Mean Concentration (µg m ⁻³)						
				2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c
Marylebone Road	Automatic	98	98	98	97	94	85	94	88	87
Horseferry Road	Automatic	84	84	49	41	39	45	46	39	37
Oxford Street	Automatic	94	94	N/A	N/A	N/A	135	143 (73%)*	135	87
Strand	Automatic	90	90	N/A	N/A	N/A	N/A	N/A	122 (60%)*	101

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%

*Annual data capture low -%age in brackets. Not annualised as reduce data capture due to intermittent maintenance issues.

- All sites are representative of public exposure.
- There were exceedances of the NO₂ annual mean air quality objective at all site with the exception of Horseferry Road.

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2016 % ^b	Number of Hourly Means > 200 µg ^m ⁻³						
			2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c
Marylebone Road	98	98	524	217	122	59	60	56	49
Horseferry Road	84	84	3	0	0	0	0	0	0
Oxford Street	94	94	N/A	N/A	N/A	1502	1532 (73%)*	1391	168
Strand	90	90	N/A	N/A	N/A	N/A	N/A	284 (60%)	235

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%

*Annual data capture low -%age in brackets. Not annualised as reduce data capture due to intermittent maintenance issues.

- All sites are representative of public exposure.
- There were exceedances of the NO₂ 1-hour mean air quality objective at all sites in 2016, with the exception of Horseferry Road.

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2016 % ^b	Annual Mean Concentration (µgm ⁻³)						
			2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c
Marylebone Road	90	90	35	41	38	33	31	30	29
Marylebone Road FDMS	95	95	32	38	31	29	26	24	26
Horseferry Road	95	95	21 (56%)*	19	18	N/A	19	17	17

Notes: Exceedance of the PM₁₀ 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%

*Annual data capture 56%. Not annualised as reduce data capture due to intermittent maintenance issues.

- All sites are representative of public exposure.
- There were no exceedances of the PM₁₀ annual mean air quality objective in 2016.

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

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2016 % ^b	Number of Daily Means > 50 µg m ⁻³						
			2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c
Marylebone Road	90	90	43	73	48	29	22	13	15
Marylebone Road FDMS	95	95	23	57	23	21	14	10	14
Horseferry Road	95	95	1 (56%)*	8	10	N/A	8	3	6

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

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

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

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

*Annual data capture 56%. Not annualised as reduce data capture due to intermittent maintenance issues.

- All sites are representative of public exposure.
- There were no exceedances of the PM₁₀ 24-hour mean air quality objective in 2016.

Table H. Annual Mean PM_{2.5} Automatic Monitoring Results (µg m⁻³)

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2016 % ^b	Annual Mean Concentration (µg m ⁻³)						
			2010 ^c	2011 ^c	2012 ^c	2013 ^c	2014 ^c	2015 ^c	2016 ^c
Marylebone Road FDMS	96	96	23	25	22	20	18	16	15.9

Notes: Exceedance of the PM_{2.5} annual mean AQO of 25 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%

- All sites are representative of public exposure.
- There were no exceedances of the PM_{2.5} annual mean air quality objective.

Table I. SO₂ Automatic Monitor Results for 2016: Comparison with Objectives

Site ID	Valid data capture for monitoring period % ^a	Valid data capture 2016 % ^b	Number of: ^c		
			15-minute means > 266 µg m ⁻³	1-hour mean > 350 µg m ⁻³	24-hour mean > 125 µg m ⁻³
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%)

^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%

- All sites are representative of public exposure.
- There were no exceedances of the SO₂ 15-minute, 1-hour, or 24-hour mean air quality objectives in 2016.

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	<i>No evidence required</i>
	1.b	Provided an up-to-date Air Quality Action Plan (AQAP), fully incorporated into LIP funding and core strategies.	Y	The Westminster City Council Air Quality Action Plan (AQAP) is a five year plan for 2013 to 2018 and is, therefore, still current. Westminster Council has integrated air quality into its transport and planning strategies and has adopted robust air quality planning policy and integrated action to improve air quality into its LIP funding schedule. WCC is in the process of developing a revised AQAP ready for 2018 The current AQAP can be found at: www.westminster.gov.uk/air-pollution
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	Westminster has developed a high impact communications campaign focused on significantly reducing unnecessary idling in the borough via innovative use of social media channels. The campaign has the support of the Council's Leader and elements of the campaign are being targeted direct at schools and hospitals.
	2.b	Developed plans for business engagement (including optimising deliveries and supply chain), retrofitting public buildings using the RE:FIT framework, integrating no engine idling awareness raising into the work of civil enforcement officers, (etc etc)	Y	As part of the Marylebone Low Emission Neighbourhood (LEN) programme, we are undertaking a project aimed at reducing vehicle trips from delivery and servicing vehicles in the LEN and promoting consolidated procurement via an area wide 'buyers scheme'. We continue to work closely with Westminster's Business Improvement Districts (BIDs) to reduce pollution in central London, via the Cleaner Air Better Business (CABB) programme managed through Cross River Partnership (CRP).
	2.c	Integrated transport and air quality, including by improving traffic flows on borough roads to reduce stop/start conditions	Y	Westminster has integrated action to improve air quality into its LIP funding schedule. Also, required air quality impact assessment as part of major transport scheme, such as the Baker Street Two Way scheme. Air quality improvement is integrated with Westminster's emerging Walking Strategy.

	2.d	Made additional resources available to improve local air quality, including by pooling its collective resources (s106 funding, LIPs, parking revenue, etc).	Y	S106. Parking Mitigation Fund, CIL and private sector contributions pooled to match funding successful Low Emission Neighbourhood bid. Agreement for any LEN-based Diesel surcharge scheme income to be used on sustainable travel improvements in LEN area.
3. Leading by example	3.a	Invested sufficient resources to complement and drive action from others	Y	Continued full integration of air quality agenda cross-departmentally across Council. Resources available in Policy & Strategy, Communications, City Management, Planning and Public Health.
	3.b	Maintained an appropriate monitoring network so that air quality impacts within the borough can be properly understood	Y	All existing AQ monitors maintained and the assessment of the feasibility of re-opening an old site in Covent Garden underway.
	3.c	Reduced emissions from council operations, including from buildings, vehicles and all activities.	Y	Air quality and low emission fleet policies integrated in to Council Procurement Code.
	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	Refurbishment of council offices (City Hall, Victoria) to achieve BREAM excellent. DSP undertaken for council office. 'No Personal Deliveries' policy introduced at council office.
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	Planning policy requires AQAs for all major new development. London Plan air quality policies implemented.
	4.b	Collected s106 from new developments to ensure air quality neutral development, where possible	Y	Westminster operates a 'carbon offset fund' to enable development to meet renewable targets which has associated benefits for air quality. Income committed during 16/17
	4.c	Provided additional enforcement of construction and demolition guidance, with regular checks on medium and high risk building sites.	Y	The Council adopted a revised Code of Construction Practice in 2016 which regulates the management and enforcement of construction sites in Westminster.
5. Integrating air quality into the public health system	5	Included air quality in the borough's Health and Wellbeing Strategy and/or the Joint Strategic Needs Assessment	Y	Health and Wellbeing Strategy includes air quality as a key theme.
6. Informing the public	6.a	Raised awareness about air quality locally	Y	Robust communication plan for air quality developed, including dedicated idling campaign, specific schools engagement and a focus LEN communications plan.

2.1 Air Quality Action Plan Progress

Table K provides a brief summary of Westminster City Council's progress against its Air Quality Action Plan (AQAP), showing progress made this year. New key projects for 2016, not referred to in the AQAP, are:

Marylebone Low Emission Neighbourhood (LEN)

In July 2016, Westminster City Council won £1million funding from the Mayor of London for a Marylebone area 'Low Emission Neighbourhood'. To create a successful bid we worked with a number of different stakeholders in the area to create the 3 year programme that is changing behaviour and improving streetscape and public realm to create an environment that encouraged an improvement in air quality.

The project is a great example of partnership working as each initiative is being delivered in partnerships with landowners, businesses and residents. Measures include:

The Green Club Building Energy Efficiency Scheme: Improves emissions from businesses by making improvements to the operation and by retrofitting energy efficient measures. The cost saving from the measures is then fed back into the scheme to further support energy saving initiatives.

Area wide Delivery & Service Programme: BIDs working to join up businesses delivery and waste schemes to reduce number of vehicles on the road.

Electric vehicle delivery scheme with UPS: Taking 2/3 diesel vehicles off the road in place of EV delivery vehicles.

Off Street EV charging bays with Q Parks: Q Parks installing more off street EV charging bays in car parks including rapid charging facilities.

Residents EV charging pilot: Installation of innovative EV charging points in lampposts, in residents parking bays.

Emission based charging scheme for on street parking: Piloting emissions-based parking charging.

No idling enforcement: Expanding our engine idling work to run promotional campaign days using volunteers from residents and businesses. Also expanding our dedicated air force marshals to enforce on vehicle idling.

Play Streets: The closure of certain residential streets from vehicles to allow children to play and learn to cycle (in particular need in Marylebone).

Smart taxi rank: Using bay sensors to manage the use of taxi ranks by providing taxi drivers with real time information as to when a feeder rank had available space to help combat over ranking and prevent vehicle emissions having particular effect in residential areas.

Street Scape: The area will also see improvements made to the public realm to create vibrant, green areas that reduce air pollution. These include: a green spine down George Street through the use of green walls, planters and park lets; pavement widening, green benches and

raised table junctions to reduce traffic speeds and create a better pedestrian experience; further installation of green roofs, casual EV charging bays and more cycle stands.

Air Quality Task Group

In August 2016, Westminster City Council launched a new Air Quality Task Group and called for evidence to help build on its efforts to tackle harmful air pollution in central London. Councillors from the Environment, Health and Children's Scrutiny Committees formed the task group, and with input from experts focused on three main areas: pollution caused by transport, pollution caused by buildings emissions and the health impacts of poor air quality.

The group sought views and evidence from local residents and workers in Westminster and looked into the health impacts of air pollution on adults and particularly on children. The group has called expert witnesses to give evidence at its meetings and is learning from best practice, identifying potential additional ways to improve air quality, and collaborate with key strategic partners in improving air quality. In addition, the task group commissioned an independent evidence review from King's College London. The findings will help the task force to form recommendations for action for the Council and our partners.

Greener City Action Plan

The Greener City Action Plan was launched in October 2015. The Plan builds on what has already been achieved and the relationships already entrenched as well as setting out objectives to further push forward the green agenda and encourage partnership working across the public and private sector.

It is set around 11 policy priorities for our ten year strategy: addressing noise pollution, making better use of waste resources, delivering affordable, secure and low carbon supplies, improving local air quality, supporting a sustainable transport system, making the best use of our open & green spaces, ensuring sustainability through economic development, supporting sustainable growth, managing water use, addressing flood risk and communicating & encouraging people into environmental action.

In the past year the Council has worked with a number of stakeholders to encourage the switch to low polluting vehicles, make smarter transport decisions and spread awareness across both businesses and residents on their environmental footprint.

Green Spaces

The Council is about to launch our Open Space & Biodiversity Strategy which sets out how the Council can make best use of its greens space, the partnerships that are needed to enhance Westminster's green space as well as guidance for stakeholders. Much of this work involves the public realm and so requires input from landowners and also cooperation between landowners to create coherent open and green spaces.

Table K. 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.	The 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. The schemes may have a wide range of benefits include the reduction of vehicle speeds, improvements in the pedestrian and cycling environment, enhanced surfaces, and widened footways. These improvements will all contribute to improving local air quality, as well as enhance the profile of sustainable modes of travel.
TRAN 2	Examine potential options and implement actions to minimise pedestrian exposure to high levels of pollution.	

TRAN 3	Support car clubs with particular emphasis on the inclusion of low emission vehicles in the fleet.	<p>There are over 10,000 members using 194 car club vehicles in Westminster. Each Westminster Car Club vehicle aims to remove 15-20 privately-owned vehicles from the road, meaning fewer emissions and less parked cars. As of Dec 2016 there were 186 car club parking bays in Westminster.</p> <p>In addition, the Council is supporting the uptake of both car clubs and electric vehicles by providing electric vehicle charging infrastructure at car club bays. From May 2016 Westminster's on street car club fleet included 44 Plug-in Hybrid Electric Vehicles (PHEVs) with on street charging infrastructure installed at each of the bays from which they operate, providing Westminster with one of the largest EV car club fleets operated by any Local Authority in the UK. To date, the utilisation data we have received for the PHEVs has shown that they are very popular with members and continued analysis of this data will help to determine the case for further transition.</p>
TRAN 4	Continue to promote and provide infrastructure for electric and low emission vehicles.	<p>Westminster already has one of the largest EV networks in the country with 60 on street parking bays and over 200 off street parking bays. We are looking to improve the network by working with a number of EV providers to maintain and improve our service, whilst making sure we get a great deal from residents.</p> <p>As part of the LEN, we are working with delivery vehicles (UPS) to convert their diesel vehicles into EVs. We are also working with UPS on a trial involving converting 1 diesel vehicle into 3 EV assisted cargo bikes in Westminster using Government (Innovate) funding. This should take 7 diesel vehicles off the road. We are also piloting the use of lighting columns as EV charging points, with a view to developing a pilot of this technology in Westminster.</p>

<p>TRAN 5</p>	<p>Continue to investigate ways in which freight consolidation can be developed and investigate and develop ways to reduce congestion from delivery vehicles.</p>	<p>Planning: Planning policy seeks to priorities the use of off-street servicing of buildings, although there are several reasons why this is not always practical. Where necessary, Westminster seeks Servicing Management Plans (SMPs) from new development. SMP seek to control e.g. the size of vehicles to be used, the times at which servicing might take place, the spread of servicing across the day (e.g. so that if they are going to require 10 vehicles across the day there is a booking system in place to avoid them all arriving together). Site specific construction logistics plans (CLPs) and considerate builder schemes are in operation and monitored by Westminster’s inspection team as part of their regular patrols of the city.</p> <p>Kerbside Management: Westminster has previously pioneered several innovations to assist freight deliveries by creating a specific manager to help with brewery deliveries, doubling the time allowed by HGVs to load / unload on yellow lines to 40 minutes, written a loading code of good practice and introduced a more flexible approach to loading enforcement.</p> <p>Delivery Service Plans (DSPs): in 2016, Westminster City Council is undertook six DSPs with businesses along Oxford Street West, and one at Westminster City Hall. DSPs are a review of goods and servicing vehicle movements to a specific location(s) to identify areas where efficiencies could be made for example to reduce the number of vehicles, remode, or retime deliveries. Monitoring for Westminster City Hall began in August 2016. On Oxford Street West businesses include The Cumberland Hotel; Gap flagship store; Longchamp and New West End Company offices.</p> <p>Procurement: Westminster’s low emission fleet policy was integrated into the Council’s Procurement Code in 2016.</p> <p>Oxford Street West (OSW): As part of the OSW project, a review of freight issues and movements has been undertaken for the district. This will be followed up by business engagement and the production of a freight plan.</p> <p>West End Partnership (WEP): WEP – a partnership of Westminster, Camden, TfL, BIDs, land owners and local West End stakeholders – will produce a freight and consolidation plan for the WEP area.</p> <p>Liaison: Westminster officers attend: The Freight Forum; The Retiming Deliveries Consortium; and The Borough Officer Liaison Group. Westminster also works closely with Cross River Partnership (CRP) to link any relevant international projects such as Last Mile Logistics (LaMilo), freight electric vehicles in urban Europe (FREVIEW) and Freight Tails.</p>
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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 2016 via the Cross River Partnership programme 'Cleaner Air Better Business'. Efficient driving training sessions were completed by 77 private hire drivers, who on average achieved a 17% reduction in fuel usage. Although the drivers were not from private hire firms with a Westminster-based office, these drivers were central-London based and operate across central London, including Westminster.
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<p>TRAN 7</p>	<p>Support schemes to encourage people to use other forms of sustainable travel such as walking and cycling.</p>	<p>Cycling</p> <p>In November 2014 WCC adopted its cycling strategy in response to the Mayor of London’s ‘Vision for Cycling in London’. <i>One of the aims was to create safe and more legible routes.</i> We have been working with TfL to provide a number of safer and legible routes in Westminster. These include the Cycle Superhighways and Quietways. The Strategy also looked to <i>improve road user interaction, education and enforcement.</i> The council provides free cycle training for all abilities. This includes a scheme run by Sustrans operating in 12 schools. The Met Police run an exchanging places event which allows cyclists to seat in a HGV driver and understand their weak spots in terms of road awareness. We provide this at our cycling based event e.g. Westminster Festival of Cycling. TfL and the Met Police also run Operation Safeway where officers will be deployed at accident hot spots and looks at enforcing against dangerous driving by both drivers in a car and on a bike by issuing fines. Westminster’s Code of Construction Practice has been revised to include requirements for HGVs used in construction, including a close proximity warning, rear signage to warn cyclists from passing on the right, side guards to prevent cyclist from being dragged under the wheel, a class 6 mirror which helps with the blind spot. We regularly place our cycle stations across the city with Dr Bike to offer free advice and help cyclists maintain their bike. Another aim of the strategy is to <i>facilitate bicycle of/access to parking.</i> We also have a bike loan scheme to encourage bike ownership and confidence on a bike. We are trialling bike hangars in different locations in Westminster by removing one underused parking bay and replacing it with one or two bike hangars.</p> <p>Walking</p> <p>WCC is aiming to improve walking throughout the borough by reviewing its Walking Strategy. The Strategy aims to improve spaces, places and crossings for pedestrians to improve the quality of life for residents, businesses and visitors. For example, by encouraging walking people can improve their fitness and reduce driving traffic and thus improve air quality. As such WCC have consulted the public on the draft Westminster Walking Strategy until the end of September 2016. The Strategy aims to be approved in the Spring of 2017 and then reviewed after about 5 years so it continues to address the needs of pedestrians up until 2027. This allows the Walking Strategy to be updated to accommodate the significant pedestrian changes that will be brought about by opening the Elizabeth Line (Crossrail 1), and the potential planning and design of Crossrail 2. Responses to the consultation which received the greatest support include: reducing traffic, reducing traffic speeds / introducing 20mph speed limits, reducing air pollution, keeping the pavements clear of obstructions and creating pocket parks.</p>
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TRAN 8	Support and promote the implementation of travel plans for schools and businesses.	<p>There are 30 schools that have TfL's STARS Accreditation which mean they have gone above and beyond to promote the use of sustainable transport, active health and in turn air quality. Some of the initiatives/actions that have been completed are as follows: 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>The Council has delivered many projects to deliver sustainable transport solutions and air quality improvements around schools over the last year. For example new physical measures, e.g. Legible London plinths and pedestrian crossings, to promote walking and cycling and make it easier for children and parents to get to the schools in a safe and sustainable way.</p> <p>100% of schools in Westminster currently have travel plans in place as of the end of the December 2016. This includes working with all private and public schools and have 100% engagement.</p> <p>Currently, over 83% of students from schools with travel plans use a sustainable mode of travel to and from school every day. The Council has also worked to develop lesson plans to increase understanding and knowledge of air quality and its impact on health. Increasing the take up of cycling to and from school is also 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.</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.</p>

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.	Safe and Fuel Efficient Driving Training (SAFED) has been rolled out for Council drivers. Work ongoing for the evaluation of extending SAFED training to contractors and for inclusion within procurement processes.
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 April 2015, amendments were made by London Councils to their standard Penalty Charge Notice (PCN) codes made it feasible for London local authorities to enforce 'idling vehicles' under road traffic legislation using PCN code 63. In early 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. A number of exemptions to enforcement exist, so where drivers have a genuine reason to vehicle idle (e.g. to maintain the running of a refrigeration unit within the vehicle, taxis on feeder ranks etc.), no enforcement will occur.</p> <p>This change from FPN to PCN will help provide an established and relatively simple enforcement route with clear and a well-established and commonly understood legislative process. The PCN process facilitates an appeal process heard by an independent adjudicator at London Tribunals rather than the necessity for a FPN to progress to a hearing at a magistrate's court. In addition, it will provide a greater deterrent, as a PCN incurs a charge of £80, or £40 if paid within 14 days of service, compared with a £20 FPN which increases to £40 if unpaid after 28 days of issue. A PCN does not require the motorist to volunteer their personal information. Any subsequent adjudicator decisions will be closely monitored.</p> <p>We also hold a number of campaign days with the involvement of volunteers to advise drivers on the negative impact of engine idling. There will be additional anti idling days focused in the LEN.</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.	Work focused on idling coaches is now incorporated in the borough-wide idling enforcement detailed in TRAN12
TRAN 14	Work with the Mayor to develop procedures to press the operator companies of vehicles found with idling engines to take enforcement action on the drivers of those vehicles.	Work focused on idling coaches is now incorporated in the borough-wide idling enforcement detailed in TRAN12
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.	No further action required
TRAN 17	Maintain dialogue with TOC's to review opportunities for improvements in reducing emissions.	Ongoing

TRAN 18	Communicate with government Ministers to make the case for stronger control of the environmental effects of rail services through existing mechanisms.	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.	No further action required
DEV 1	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.	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.' The council requires developers to undertake an Air Quality Assessment (AQA) where a development may have negative air quality impacts. 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. Detailed planning policies are currently being revised and will continue to safe-guard air quality in Westminster.

DEV 2	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.	As part of our emerging local plan, which will cover the next 15-20 years, the Council is developing new policies to manage and mitigate air, noise and light pollution, as well as construction impacts, construction waste and contaminated land. These policies should secure a better and more liveable environment across the City. Detailed planning policies are currently been revised and will continue to safe-guard air quality in Westminster.
DEV 3	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.	The SPD is on hold in lieu of our ongoing consultation and local plan development. No further action required at this point.
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 energy. WCC has received part-funding from the Dept of Business Energy and Industrial Strategy for a feasibility study looking at using a zero (local) emission heat pump to abstract energy from the River Thames into its district heat network in Pimlico. This is tied to an expansion of PDHU and is undergoing further development. Church Street Regeneration project has developed a business case for a DH network starting operation in 2021 although there are opportunities to bring this forward. A decision is due to be made in 2017/18.

DEV 5	Adopt policy which ensures biofuel combustion does not negatively impact on local air quality.	No known biomass development exists in Westminster. Strong AQ planning policy exists which ensures no negative impact on air quality.
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.	In 2016, the council has adopted its new Code of Construction Practice, which 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 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.	We continue to publish high quality air quality information via the Westminster City Council website.
COMM 2	Monitor air pollution across the City and periodically review the air quality monitoring network.	Air quality is now monitored at 5 sites across Westminster. Marylebone Road, Horseferry Road, Oxford Street, Victoria Palace Theatre and Strand (Northbank). Victoria Palace Theatre monitoring site was commissioned in late 2013, but is temporarily re-located (and not representative of relevant public exposure) as a result of construction work. Strand site was commissioned in early 2015. Renewal of an old site in Covent Garden is under review for re-opening for 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.	WCC is developing a dedicated communications campaign to engaged the local community and embed no-idling behaviour change. The campaign will raise awareness of the issue in resident and core audiences through media, social media and Air Marshall events; use MPs and celebrity endorsement to amplify campaign; and drive people to a dedicated #DontBeldle website. Engagement will focus of coach companies, taxi associations, freight companies, delivery firms through direct letters, engagement packs, Air Marshall visits and ask them to join the pledge, distribute collateral and send drivers on training courses. 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.	Work on health communications will be co-delivered by both Built Environment and Public Health Units within The Council, working closely with CCG's and the third sector.
COMM 6	Continue to support and raise awareness about the AirTEXT air quality information service.	We continue to support airTEXT and promote its service via the web and 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.

COMM 8	Raise awareness of air quality within Westminster schools to increase understanding of issues, encourage more sustainable travel modes and minimise exposure.	We work closely with Westminster schools to encourage more sustainable travel modes and minimise exposure. 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. Green walls have been installed by the Council at two of Westminster's primary schools.
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3. Planning Update and Other New Sources of Emissions

**Table L. Planning requirements met by planning applications in Westminster 2016²
(1/4/2016 – 31/8/2016)**

Condition	Number
Number of planning applications reviewed for air quality impacts	197
Number of planning applications required to monitor for construction dust	Data not currently available ³
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	23 ⁴
Number of AQ Neutral building and/or transport assessments undertaken	3 ³
Number of AQ Neutral building and/or transport assessments not meeting the benchmark and so required to include additional mitigation	2
Number of planning applications with S106 agreements including other requirements to improve air quality	Data not currently available ²
Number of planning applications with CIL payments that include a contribution to improve air quality	0

² Figures in this table relate to applications between 1/4/2016 – 31/8/2016. Our current reporting system for AQ/Planning commenced in 1/4/2016 and analysis is still on-going.

³ In Sept 2016, Westminster adopted a new Code of Construction Practice. This altered our approach to the use of S106 agreements for management and enforcement of construction emissions. Data is, therefore, not consistently available on the number of applications which have these conditions attached for 2016. We are working to improve our AQ/Planning recording system for future years.

⁴ These figures represent the number specifically referred to in officer reports, not an accurate count on the number of assessments. We are working to improve our AQ/Planning recording system for future years.

Condition	Number
<p>NRMM: Central Activity Zone and Canary Wharf</p> <p>Number of conditions related to NRMM included.</p> <p>Number of developments registered and compliant.</p>	<p>Data not currently available⁵</p> <p>Number of active demolition/construction sites proactively monitored: 30</p> <p>Number of developments registered: 21</p> <p>Number of which are compliant: 4</p> <p>Number of which are non-compliant: 8</p> <p>Number of which there is no information on the website beyond registration: 9</p> <p>We also have 3 Crossrail sites in the borough which are all exempt from having to submit information onto the NRMM register.</p>
<p>NRMM: Greater London (excluding Central Activity Zone and Canary Wharf)</p> <p>Number of conditions related to NRMM included.</p> <p>Number of developments registered and compliant.</p>	<p>Data not currently available⁴</p> <p>Number of active demolition/construction sites proactively monitored: 7</p> <p>Number of developments registered on NRMM website: 5</p> <p>Number of which are compliant: 3</p> <p>Number of which are non-compliant: 0</p> <p>Number of which there is no information on the website beyond registration: 2</p>

⁵ We do not apply specific conditions requiring compliance with NRMM as we require construction sites to comply with the Council's Code of Construction Practice which, in turn, requires compliance with NRMM. As mentioned previously, our recent adoption of a revised Code of Construction Practice altered our approach to the use of S106 agreements for management and enforcement of construction emissions and data is not consistently available on the number of applications which have these conditions attached for 2016. We have provided what data we have available in relation to current active construction sites which are proactively monitored. We are working to improve our AQ/Planning recording system for future years.

Processes are in place to ensure that all relevant planning applications are reviewed and any air quality conditions, including NRMM conditions, are enforced. On receipt of a planning application, the case officer decides if input from specialist AQ officers is required. Generally, Environmental Health Air Quality officers are consulted on all major and mixed use developments and applications for CHP. A standard checklist for major and mixed use developments is used which includes a prompt on air quality assessments and a link to the relevant guidance for consideration.

Where an application is accompanied by an air quality assessment, this is assessed and appropriate comments and where necessary conditions are recommended. In cases where an air quality assessment is absent, but deemed necessary, the applicant is requested to provide one, in some circumstances via conditioned. Any non-compliance with planning conditions is enforced by the planning enforcement team through the usual process in line with the Council's enforcement policy.

The Council adopted a Code of Construction Practice on the 1st September 2016 which includes a requirement for all sites to which the Code applies to comply with NRMM requirements. This is assessed by officers on routine site visits to these sites.

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 Local Site Operator from City of Westminster on a fortnightly schedule.

PM₁₀ Monitoring Adjustment

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