

Appendix 1

Air Quality Annual Status Summary Report for 2018

1. Air Quality Monitoring

Nitrogen Dioxide (NO₂)

NO₂ is measured at three locations using continuous (or automatic) analysers: Sir John Cass's Foundation Primary School, Beech Street and Upper Thames Street. In 2018, it was also measured at a further 79 locations using low-cost diffusion tubes.

NO₂ levels have been reducing across the City, particularly at background locations. In Beech Street, NO₂ concentrations reduced by 11µgm⁻³ over the past year, this is partly due to the introduction of electric single deck buses and the new electric taxis for London. At Sir John Cass's Foundation Primary School, the 2018 annual average NO₂ reduced to 32 µgm⁻³. Due to the impact of traffic on pollution levels, concentrations adjacent to busy roads are more variable and remain above the annual EU limit of 40 µgm⁻³.

PM₁₀

PM₁₀ is measured at three locations using continuous (automatic) analysers: Sir John Cass's Foundation Primary School, Beech Street and Upper Thames Street. In 2018 levels of PM₁₀ showed no significant change compared to 2017. All sites are below the annual and daily EU limit values but above World Health Organisation Guidelines.

PM_{2.5}

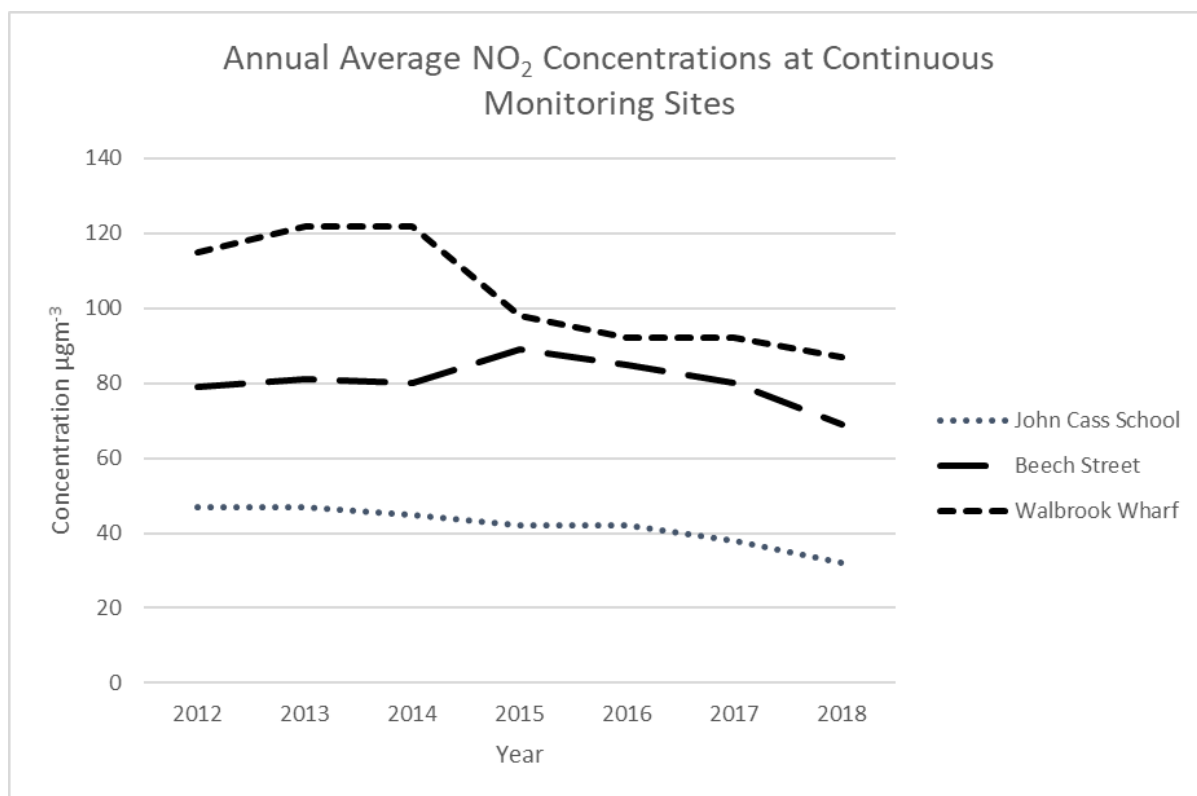
PM_{2.5} is measured at two locations, Farringdon Street and Sir John Cass's Foundation Primary School, using continuous (automatic) analysers. Concentrations are similar at both sites as it is a regional pollutant and strongly influenced by weather conditions. Both sites are below the annual and daily EU limit value but above World Health Organisation Guidelines.

2. Nitrogen Dioxide Data

EU Limit Value and World Health Organisation Guideline is 40µg m⁻³

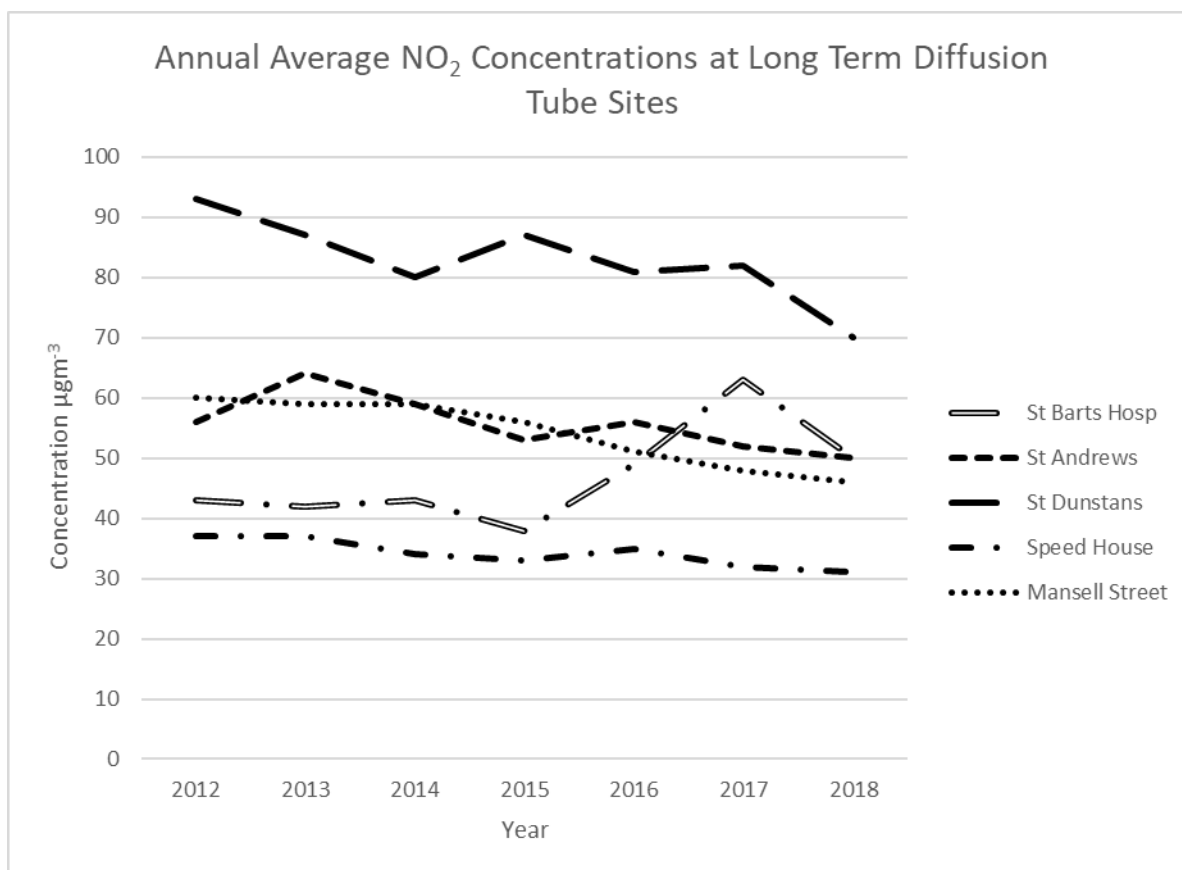
Long term continuous analysers

Site	Site type	Annual Mean (µgm ⁻³)						
		2012	2013	2014	2015	2016	2017	2018
John Cass's Foundation Primary School	Urban Background	47	47	45	42	42	38	32
Beech St	Roadside	79	81	80	89	85	80	69
Walbrook Wharf	Roadside	115	122	122	98	92	92	87



Long term diffusion tube sites

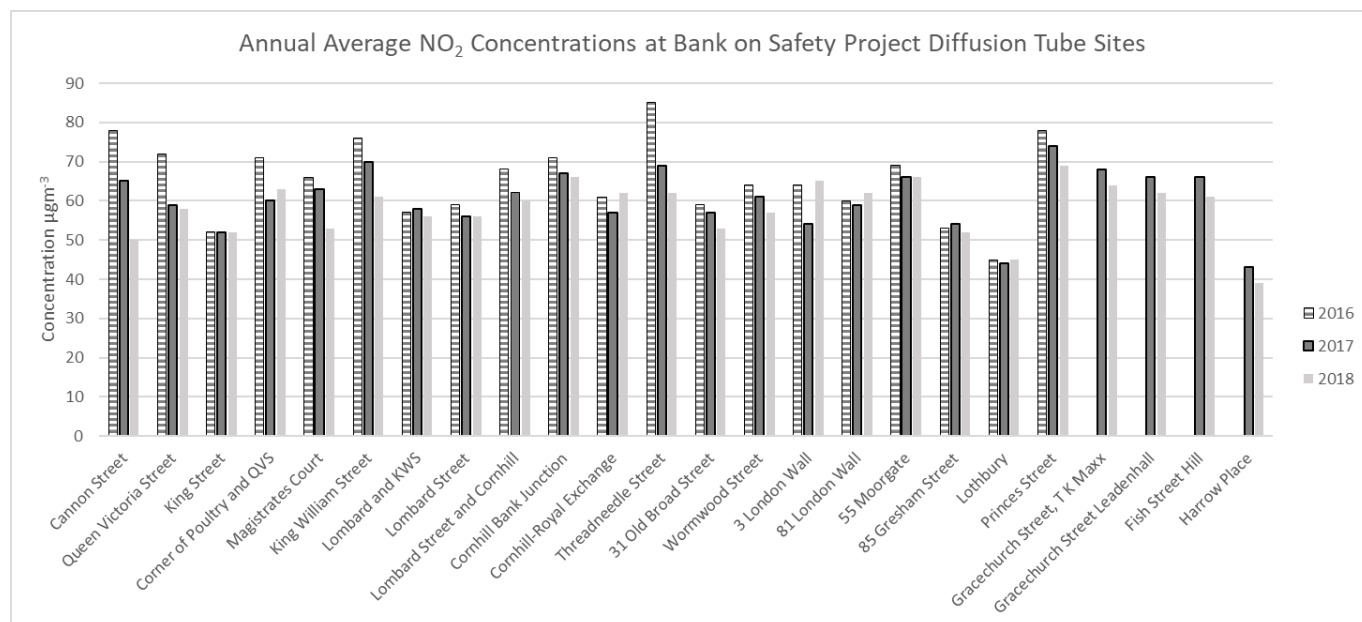
Site	Site type	Annual Mean (µgm ⁻³)						
		2012	2013	2014	2015	2016	2017	2018
St Bartholomew's Hospital Courtyard	Urban Background	43	42	43	38	49	63	50
St. Andrew's Church, Queen Victoria St	Roadside	56	64	59	53	56	52	50
Fleet Street	Roadside	93	87	80	87	81	82	70
Speed House, Barbican Estate	Urban Background	37	37	34	33	35	32	31
Guinness Trust Estate, Mansell St	Roadside	60	59	59	56	51	48	46



Diffusion tube sites measuring the impact of the Bank on Safety traffic scheme

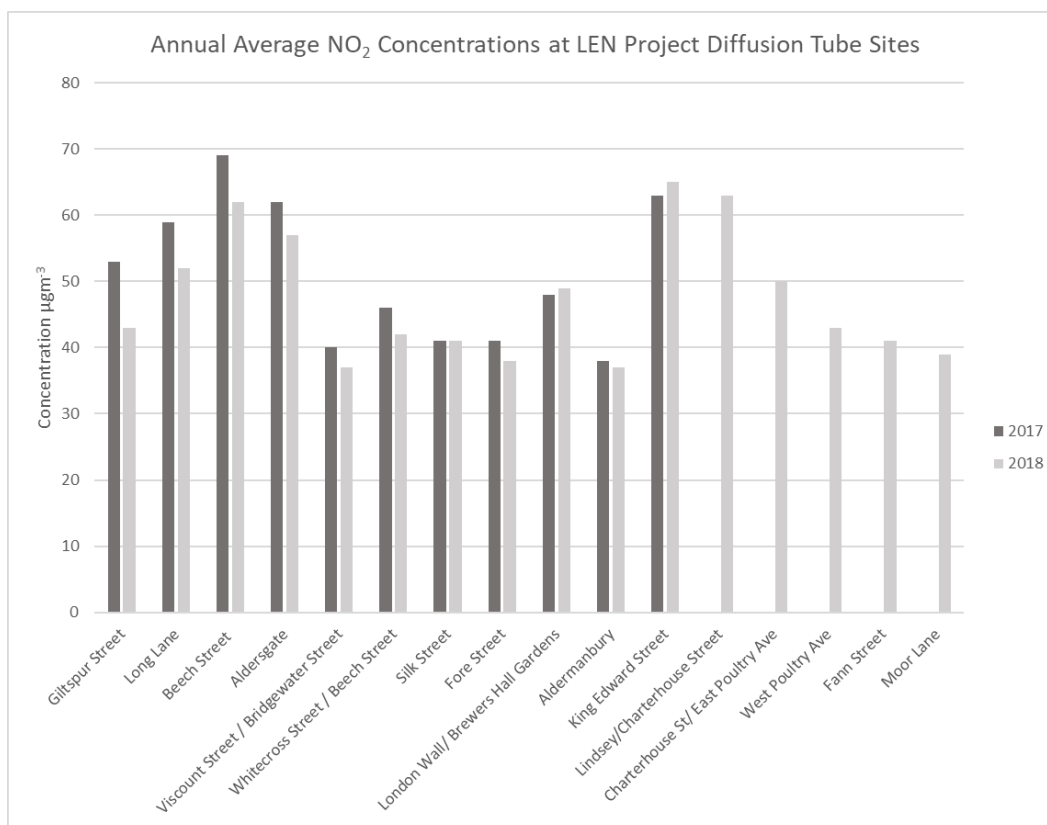
Site	Annual Mean (µgm ⁻³)		
	2016	2017	2018
Cannon Street	78	65	50
Queen Victoria Street	72	59	58
King Street	52	52	52
Corner of Poultry and QVS	71	60	63
Magistrates Court	66	63	53
King William Street	76	70	61
Lombard and KWS	57	58	56
Lombard Street	59	56	56
Lombard Street and Cornhill	68	62	60
Cornhill Bank Junction	71	67	66
Cornhill-Royal Exchange	61	57	62
Threadneedle Street	85	69	62
31 Old Broad Street	59	57	53
Wormwood Street	64	61	57
3 London Wall	64	54	65
81 London Wall	60	59	62
55 Moorgate	69	66	66
85 Gresham Street	53	54	52

Lothbury	45	44	45
Princes Street	78	74	69
Gracechurch Street, T K Maxx	-	68	64
Gracechurch Street Leadenhall	-	66	62
Fish Street Hill	-	66	61
Harrow Place	-	43	39



Diffusion tube sites measuring the impact of the Low Emission Neighbourhood

Site	Annual Mean (µgm ⁻³)	
	2017	2018
Giltspur Street	53	43
Long Lane	59	52
Beech Street- Near Barbican station	69	62
Aldersgate	62	57
Corner of Viscount Street and Bridgewater Street	40	37
Corner of Whitecross Street and Beech street	46	42
Silk Street	41	41
Fore Street	41	38
London Wall/ Brewers Hall Gardens	48	49
Aldermanbury	38	37
King Edward Street	63	65
Lindsey/Charterhouse Street	-	63
Charterhouse St/ East Poultry Ave	-	50
West Poultry Ave	-	43
Fann Street	-	41
Moor Lane	-	39



Diffusion tube sites - other

Site	Annual Mean (µgm ⁻³)
Cousin Lane 1	36
Cousin Lane 2	42
Cousin Lane 3	46
Cousin Lane 4	51
Under Southwark Bridge	41
Under London Bridge	37
Liverpool Street	71
Lime Street	38
Fenchurch Avenue	36
Austin Friars	36
Fetter Lane	56
Rolls Passage/Breams Buildings	36
22 Tudor Street	46
St Mary at Hill's Churchyard	33
Monument	41
St Pauls Churchyard	41
St Alphage Gardens	34
Whittington Gardens	42

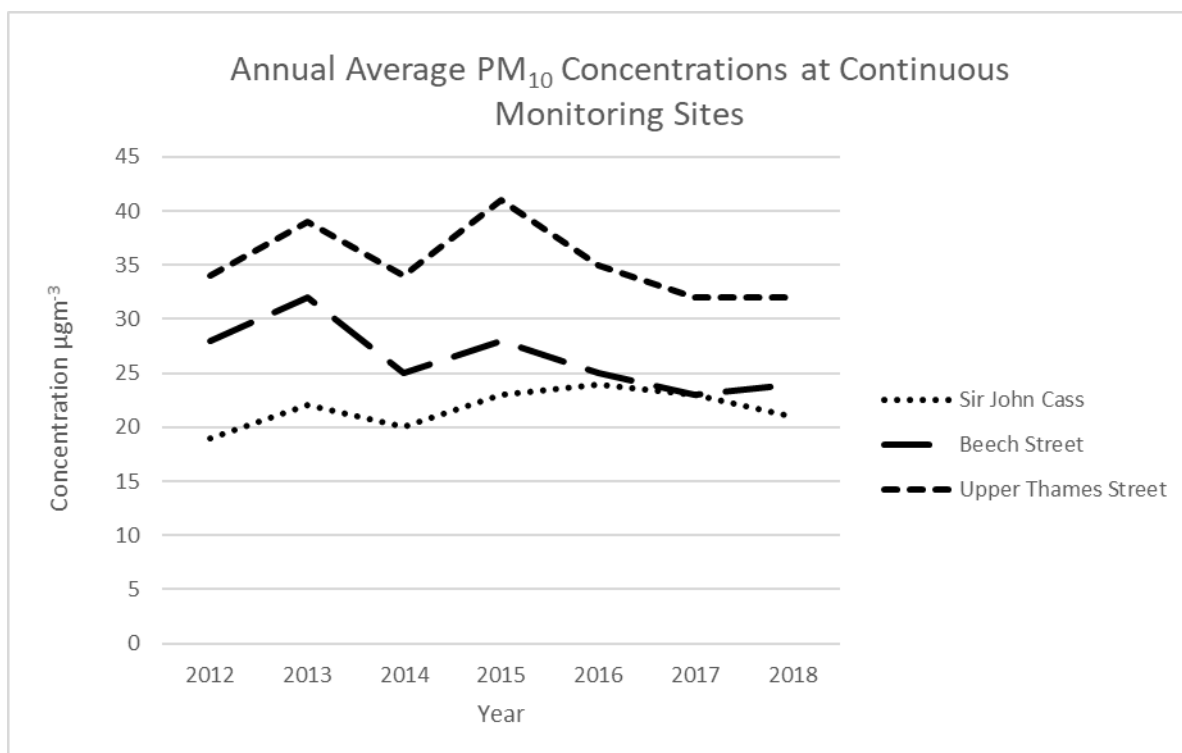
Diffusion tube sites to support the Transport Strategy

Site	Annual Mean (μgm^{-3})
Botolph Lane	49
Byward Street	67
Seething Lane	71
Crosswall	50
Minories	62
Stoney Lane	40
Heneage Lane	42
Camomile Street	68
150 Bishopsgate	74
St Mary Axe	50
Old Broad Street	40
Upper Thames Street	48
Blackfriars Bridge	62
Victoria Embankment	68
Fleet Street	62
Ludgate Hill	61
Museum of London	66
London Wall	65
West Poultry Ave	51
The Fable	58
North Old Baily	73

3. PM₁₀ Data

EU limit value is $40 \mu\text{gm}^{-3}$, World Health Organisation Guideline is $20 \mu\text{gm}^{-3}$

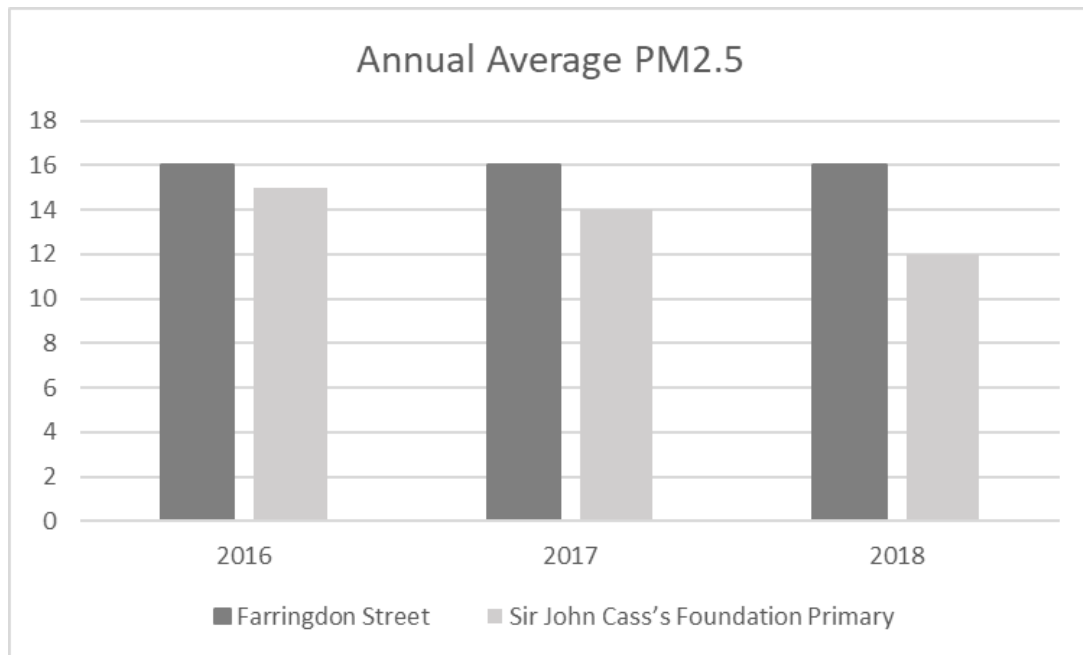
Site	Annual Mean (μgm^{-3})						
	2012	2013	2014	2015	2016	2017	2018
John Cass's Foundation Primary School	19	22	20	23	24	23	21
Beech St	28	32	25	28	25	23	24
Upper Thames St	34	39	34	41	35	32	32



4. PM_{2.5} Data

EU limit value is 25µg m⁻³, World Health Organisation Guideline is 10µgm⁻³

Site	Annual Mean (µgm ⁻³)		
	2016	2017	2018
Farringdon Street	16	16	16
Sir John Cass's Foundation Primary	15	14	12



5. Air quality action plan update

The City Corporation has an Air Quality Strategy which details action being taken to improve air quality. Example of actions in 2018 include:

- Completion of a range of pilot interventions as part of a Low Emission Neighbourhood (LEN) programme.
- An electric vehicle charging pilot trial was undertaken by residents on the Barbican Estate
- The LEN funded Smithfield cargo bike delivery trial developed into an independently run permanent cargo-bike delivery service.
- Air Quality was embedded into the new Transport Strategy, the Responsible Business Strategy and the draft City Plan (Local Plan).
- Proposals were developed for an Emission Reduction Bill, to provide adoptive powers for London local authorities to control emissions from a range of combustion plant.
- The City Corporation idling engine action days project continued to expand with 19 London Boroughs involved.
- Levels of nitrogen dioxide at Sir John Cass's Foundation Primary School reduced even further, to $32\mu\text{g}/\text{m}^3$.
- 33 large businesses pledged to take action to improve air quality.
- The City Corporation added an additional 3 electric vehicles to its fleet and updated vehicles where necessary for compliance with the Mayor of London Ultra Low Emission Zone.
- A bi-monthly air quality e-newsletter has been produced.

6. Monitoring locations

Air quality monitoring locations are reviewed annually. There are a number of core monitoring sites that are maintained. Other sites are added and removed according to the needs of research projects, planned programmes and local investigations or concerns. Locations at which monitoring is taking place during 2019 are shown in Figure 1 overleaf.

Figure 1: Air quality monitoring locations, 2019

