Committee	Dated:
Port Health and Environmental Services	16th July 2018
Subject: Air quality annual status report 2017	**Public**
Report of: Director of Markets and Consumer Protection	**For Information**
Report author: Stefanie Hughes, Air Quality Officer	

Summary

The City of London Corporation's Air Quality Strategy 2015 – 2020 was approved by the Port Health and Environmental Services Committee in July 2015.

The strategy fulfils the City Corporation's statutory obligation to assist the Government and Mayor of London to meet European limit values for nitrogen dioxide and fine particles (PM_{10}). It also assists with the City Corporation's obligations under the Health and Social Care Act 2012 to improve the public health of its population.

The City Corporation is required to produce a statutory annual status report to demonstrate progress with actions contained within the strategy. This report summarises the progress being made. A copy of the full report is in the Members' Reading Room. The graphs detailing air quality data are attached as Appendix 1. The amount of air quality monitoring taking place in the City has significantly increased in recent years. This is due to the increased interest in air quality in the City.

The City Corporation has been awarded Cleaner Air Borough status by the Mayor of London as a result of its commitment to improve air quality.

Overall air quality is gradually improving in the City of London. This is set to continue with the work being implemented by the City Corporation and the Mayor of London's proposals to improve air quality.

Recommendation

Members are asked to:-

- note the report

Main Report

Background

1. The City Corporation has a statutory duty to assist the Mayor of London and the UK government in taking action to reduce levels of air pollution so that concentrations of pollutants do not exceed set limits. The City Corporation also has a responsibility to improve public health.

2. The City of London Air Quality Strategy 2015 – 2020 outlines action that will be taken to fulfil the City Corporation's statutory responsibility for Local Air Quality Management, and for reducing the health impact of air pollution on residents and workers.

3. The City Corporation has a statutory obligation to submit an annual status report to the Mayor of London and the government. The report must outline progress with actions within the strategy and provide details of any air quality monitoring undertaken. A copy of the full report, which was submitted in May 2018, is in the Members' Reading Room. Graphs detailing air quality data are attached as Appendix 1.

Air quality data

4. The amount of air quality monitoring taking place in the City has significantly increased in recent years. This is due to the increased interest on air quality in the City.

5. Over the past few years, annual average levels of nitrogen dioxide at background sites, which are areas away from busy roads, have been decreasing year on year across the City. Nitrogen dioxide concentrations in 2017 were either lower, or the same, as in 2016. The one exception to this trend is at St. Bartholomew's hospital where nitrogen dioxide concentrations have risen from 38 $\mu g/m^3$ in 2015, which was below the air quality limit value, to 49$\mu g/m^3$ in 2016 and have risen again further to 63 $\mu g/m^3$ in 2017. This is a significant increase and is consequently being investigated. Levels of nitrogen dioxide in the rear playground of Sir John Cass Foundation Primary School are, for the first time since monitoring began, below the limit value at 38$\mu g/m^3$.

6. Roadside concentrations of nitrogen dioxide are more variable than background due to localised traffic changes. There was a further reduction of concentrations at the Beech Street monitoring site. Concentrations in Upper Thames Street remain high and showed no reduction in 2017. Both sites still have levels of nitrogen dioxide twice the limit value or over.

7. Nitrogen dioxide data has continued to be collected in and around Bank Junction to assess the impact of the Bank on Safety traffic management scheme. The majority of monitoring sites experienced a decrease in concentrations from the 2016 baseline to 2017, however this is in line with the general trend of decreasing

concentrations across the city therefore care must be taken over the interpretation of these results.

8. Nitrogen dioxide levels were also measured around the Low Emissions Neighbourhood project area from late 2016 to assess the impacts of the project.

9. Annual average concentrations of fine particles, PM_{10} across the City's monitoring network have been below the limit value since 2010, with the exception of 2015, when it is thought that the breach along Upper Thames Street was associated with local construction activity and Cycle Super Highway work. All three monitoring sites experienced a slight decrease in concentrations in 2017. The PM10 24-hour mean was breached in 2017 in Upper Thames Street. This is typical for this site.

10. Levels of $PM_{2.5}$ in Farringdon Street and Sir John Cass School continue to be well below the annual average limit value.

Progress with actions

11. The annual status report details progress with actions in the City Corporation Air Quality Strategy. Actions of note include:

    - Through the Low Emissions Neighbourhood Project (LEN), air quality champions grants were awarded to 14 different projects across 9 different organisations in the City.
    - The LEN project has also funded and installed secure cycle parking across the Barbican estate and Barbican Centre for residents and visitors.
    - The City has commissioned research to look at the evidence base for options for introducing local legislation to deal with pollution from combustion plant. This will inform options for local legislation.
    - Idling engine action days project continues to expand with 16 London Boroughs involved in 2017, this is set to increase to 19 for 2018.
    - Additional resources have been provided with two new members of the Air Quality Team in 2017, an Air Quality and Communications Assistant and an additional Air Quality Officer.
    - Focussed action around Sir John Cass School has led to the nitrogen dioxide levels in the playground being below the legal objective for the first time since monitoring began 15 years ago.
    - A Supplementary Planning Document for air quality was published in June 2017.
    - The City Corporation purchased 8 electric vehicles in 2017 and is trialling an electric refuse vehicle.
    - The City Air app has been well promoted and has over 26,000 users. The relative amounts of pollution on three routes are available so the user can make a more informed judgement about which route to take.

12. The City Corporation Air Quality Strategy will refreshed later this year with an updated action plan to reflect the revised London Plan, the new London Environment Strategy and the draft National Clean Air Strategy.

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Corporate & Strategic Implications

13. The work on air quality supports several outcomes from the new Corporate Plan 2018 to 2023. Outcome 11 ‘We have clean air, land and water and a thriving and sustainable natural environment’; Outcome 2 ‘People enjoy good health and wellbeing’. Outcome 5 ‘Businesses are trusted and are socially and environmentally responsible’ is supported through the CityAir business engagement work.

Conclusion

14. The City Corporation has submitted its statutory annual air quality status report to the Mayor of London and government, and has been awarded Clean Air Borough Status for its action to improve air quality.

15. Overall, air quality is improving in the City of London. This is set to continue with the work being implemented by the City Corporation, the update of the Air Quality Strategy and the Mayor of London’s new proposals to improve air quality.

Appendices

Appendix 1: Graphs detailing air quality data

Background Papers: City of London Air Quality Strategy 2015 - 2020

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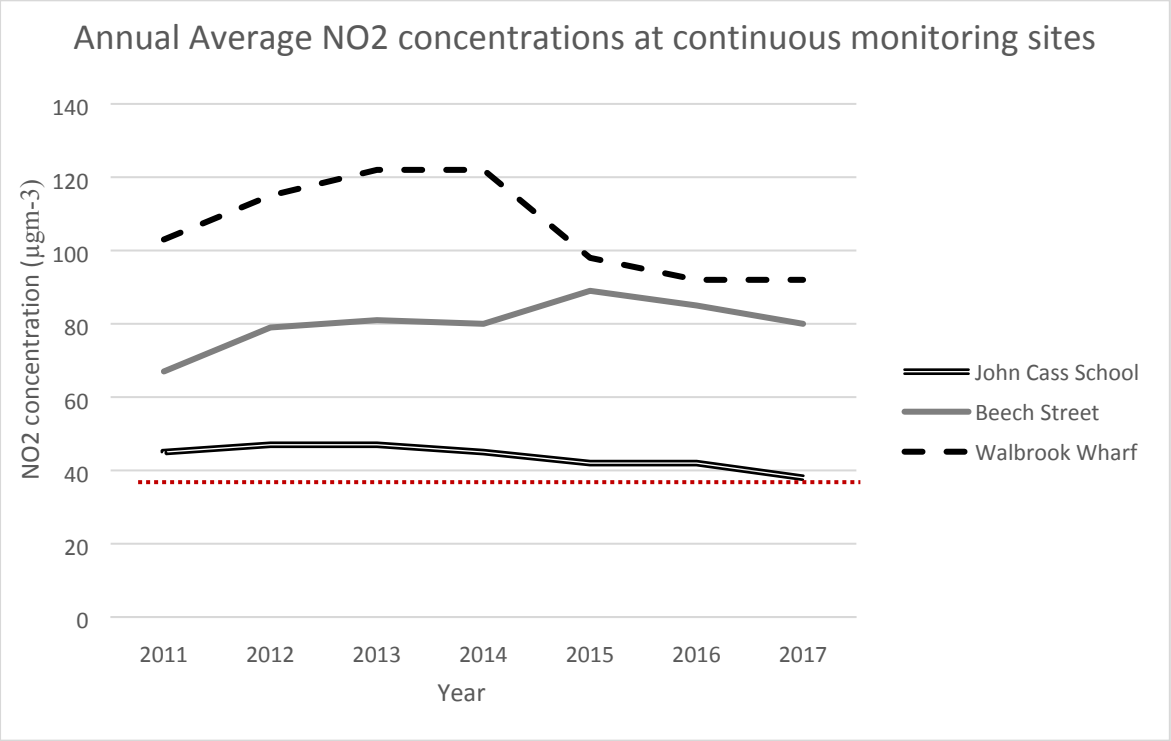
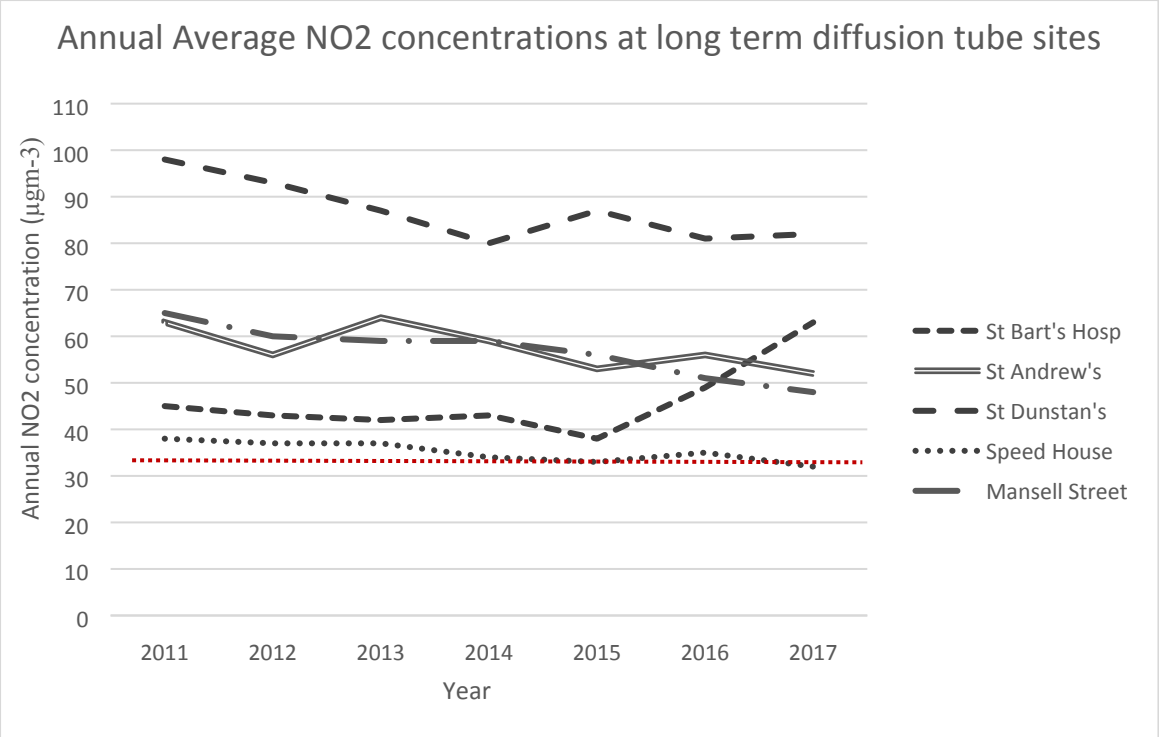
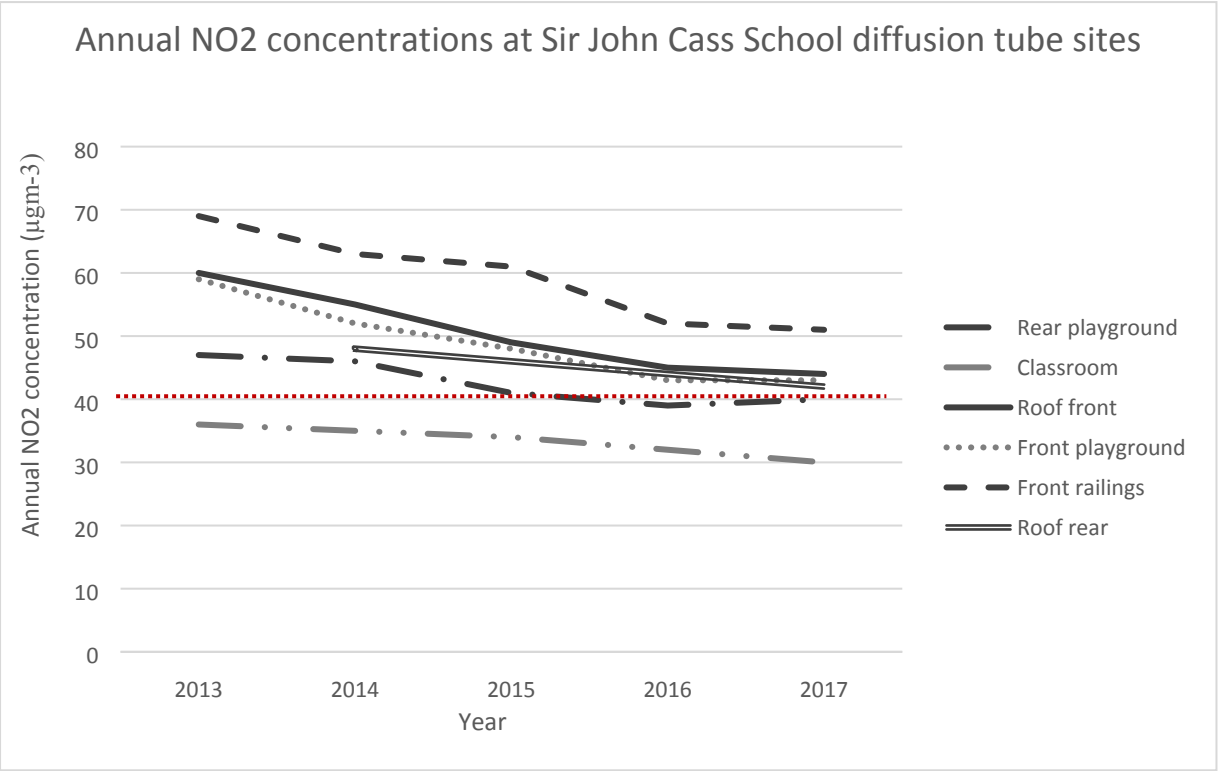
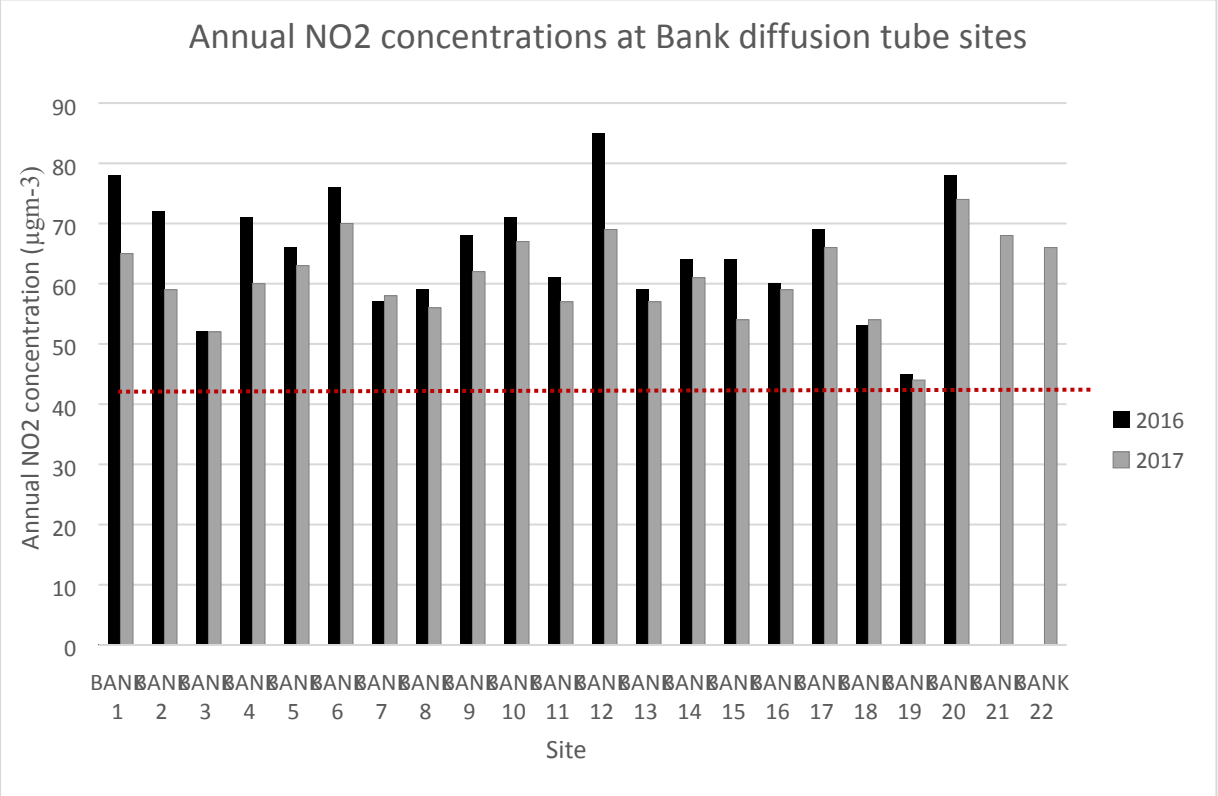
Appendix 1: Graphs detailing air quality data

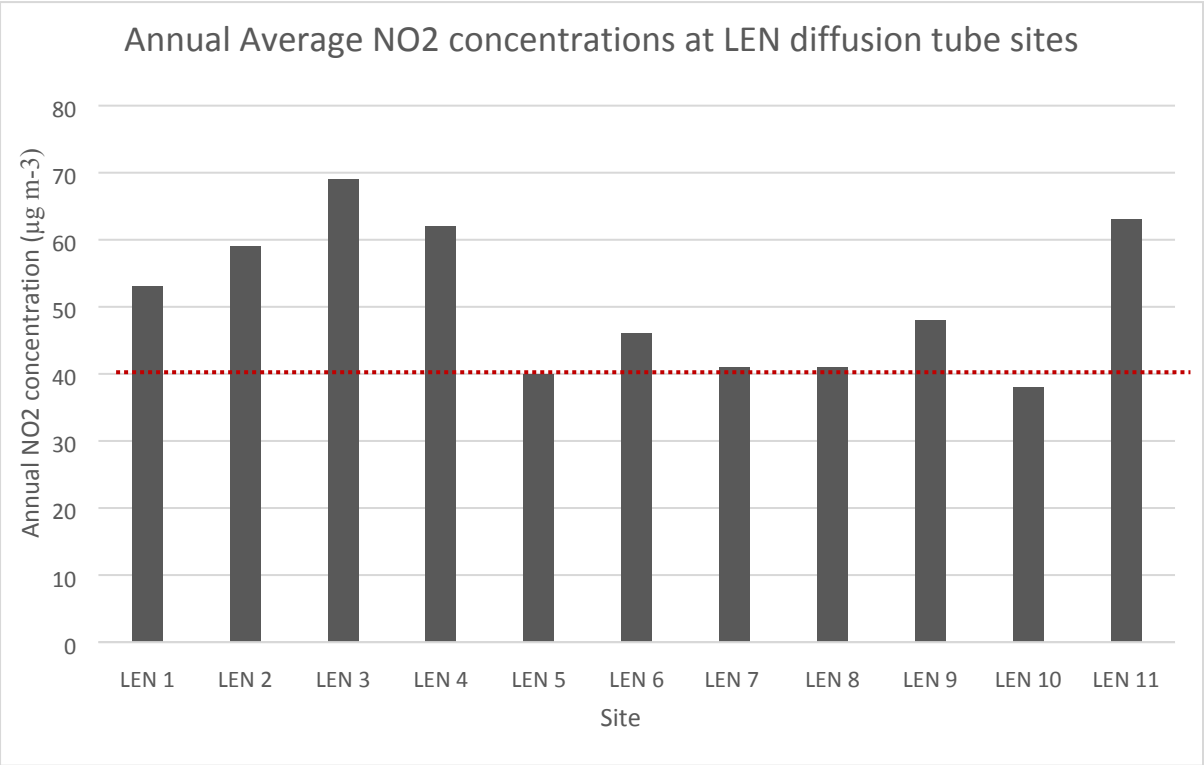
The horizontal line on each graph equates to the air quality limit value

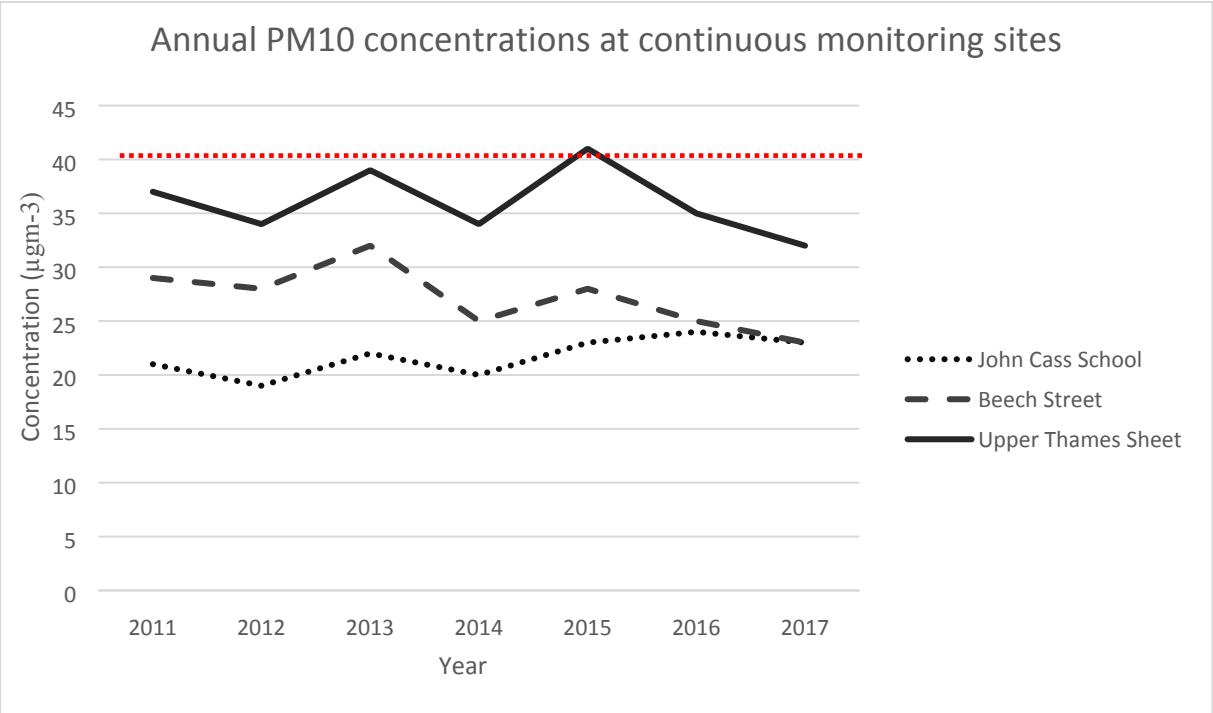


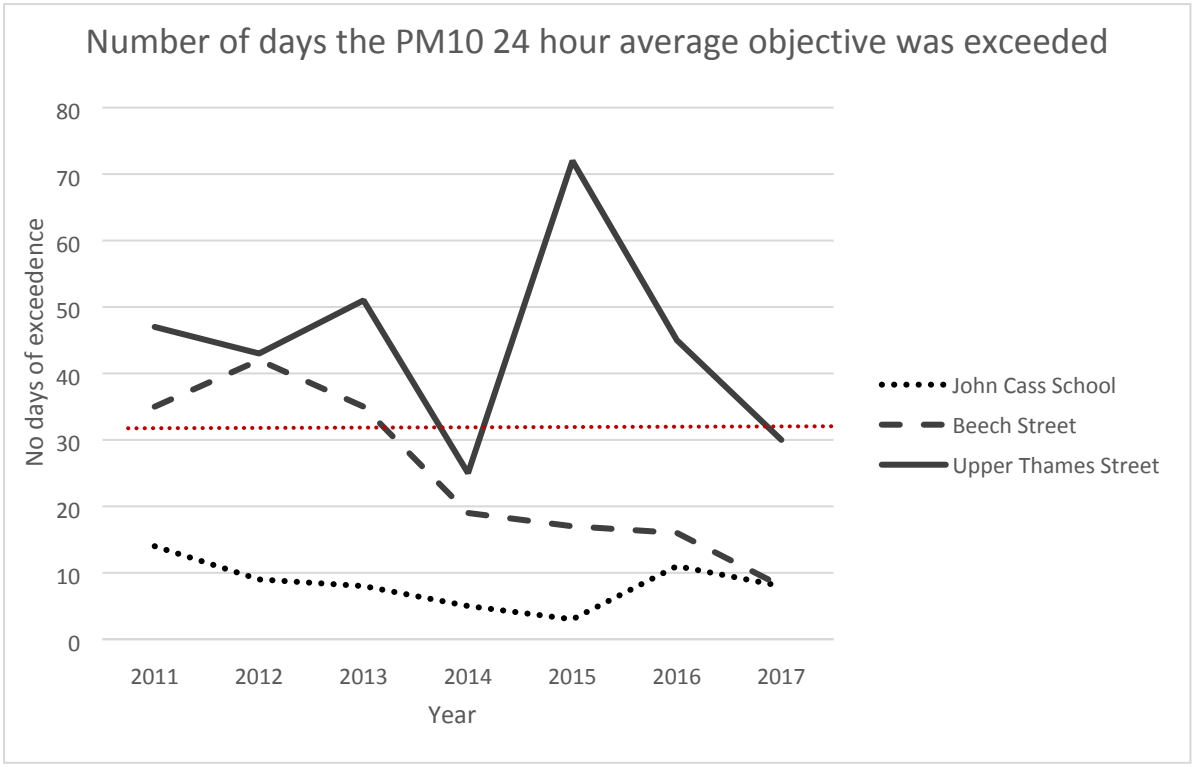


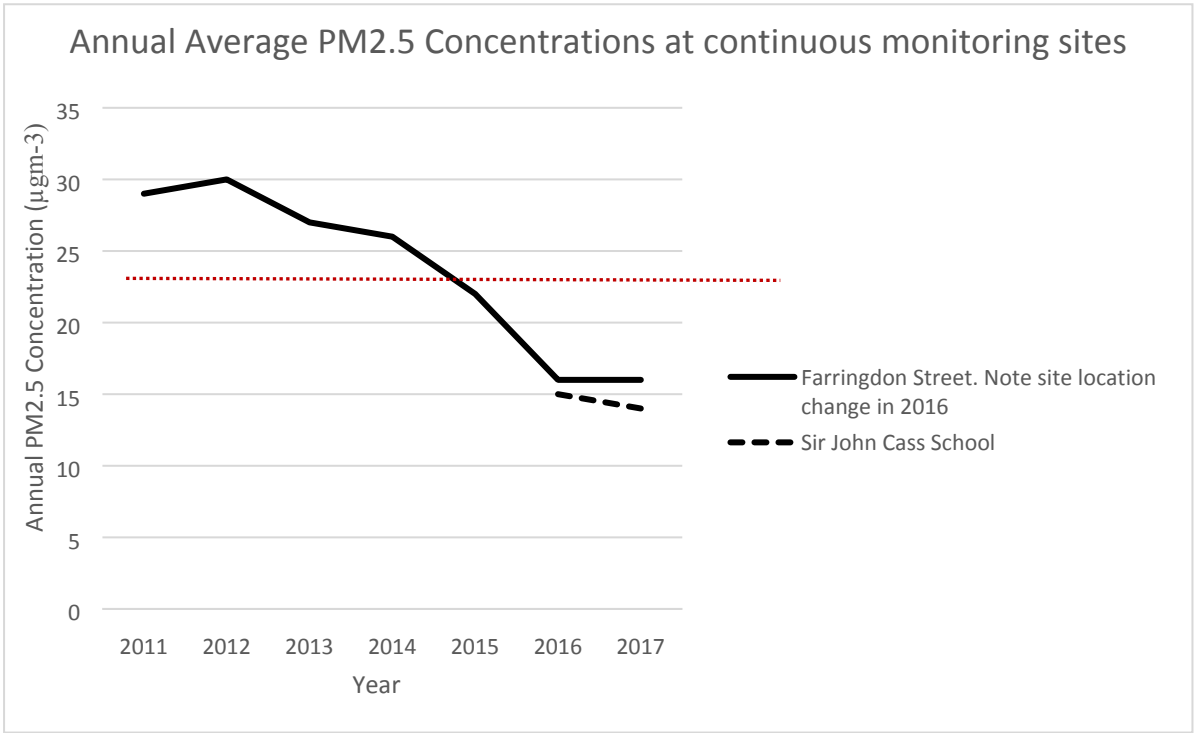

Annual NO2 concentrations at Sir John Cass School diffusion tube sites
Annual NO2 concentration (µgm-3)
80
70
60
50
40
30
20
10
0
2013
2014
2015
2016
2017
Year
Rear playground
Classroom
Roof front
Front playground
Front railings
Roof rear


Annual NO2 concentrations at Bank diffusion tube sites
Annual NO2 concentration (µgm-3)
90
80
70
60
50
40
30
20
10
0
BANK 1
BANK 2
BANK 3
BANK 4
BANK 5
BANK 6
BANK 7
BANK 8
BANK 9
BANK 10
BANK 11
BANK 12
BANK 13
BANK 14
BANK 15
BANK 16
BANK 17
BANK 18
BANK 19
BANK 20
BANK 21
BANK 22
Site
2016
2017


Annual Average NO2 concentrations at LEN diffusion tube sites
Annual NO2 concentration (µg m-3)
80
70
60
50
40
30
20
10
0
LEN 1
LEN 2
LEN 3
LEN 4
LEN 5
LEN 6
LEN 7
LEN 8
LEN 9
LEN 10
LEN 11
Site


Annual PM10 concentrations at continuous monitoring sites
Concentration (µgm-3)
45
40
35
30
25
20
15
10
5
0
2011
2012
2013
2014
2015
2016
2017
Year
John Cass School
Beech Street
Upper Thames Sheet


Number of days the PM10 24 hour average objective was exceeded
No days of exceedence
80
70
60
50
40
30
20
10
0
2011
2012
2013
2014
2015
2016
2017
Year
John Cass School
Beech Street
Upper Thames Street


Annual Average PM2.5 Concentrations at continuous monitoring sites
Annual PM2.5 Concentration (µgm-3)
35
30
25
20
15
10
5
0
2011
2012
2013
2014
2015
2016
2017
Year
Farringdon Street. Note site location change in 2016
Sir John Cass School