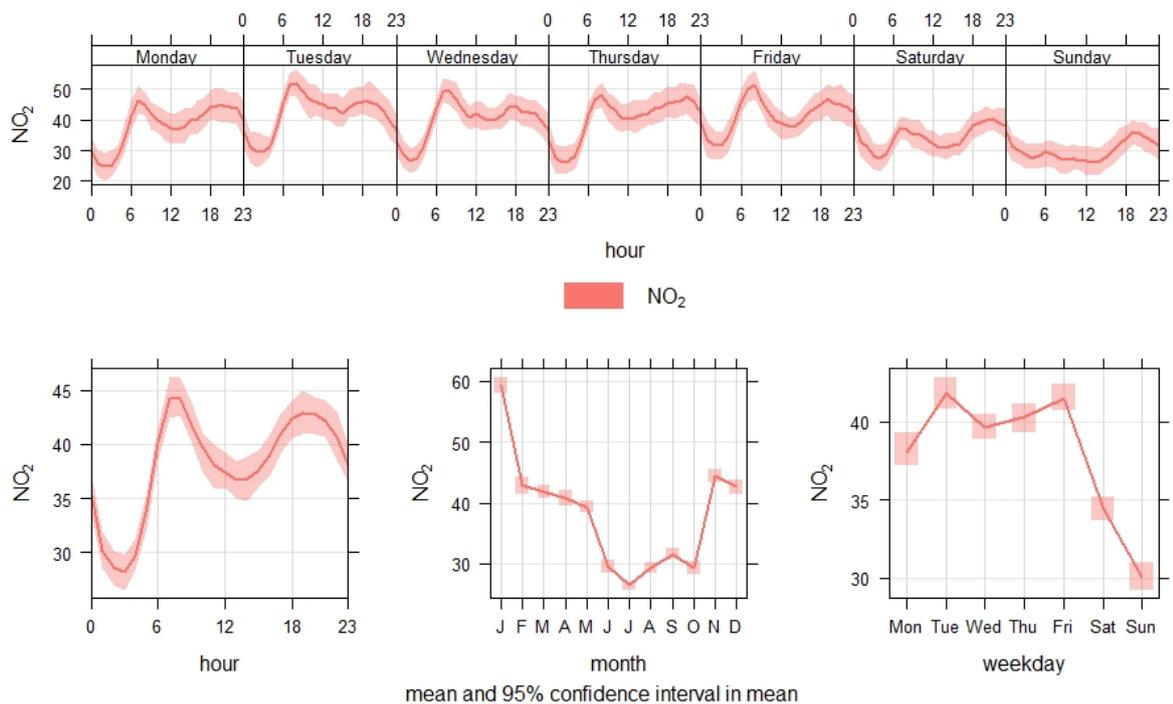


## Appendix 6 - City of London Air Quality Monitoring 2017

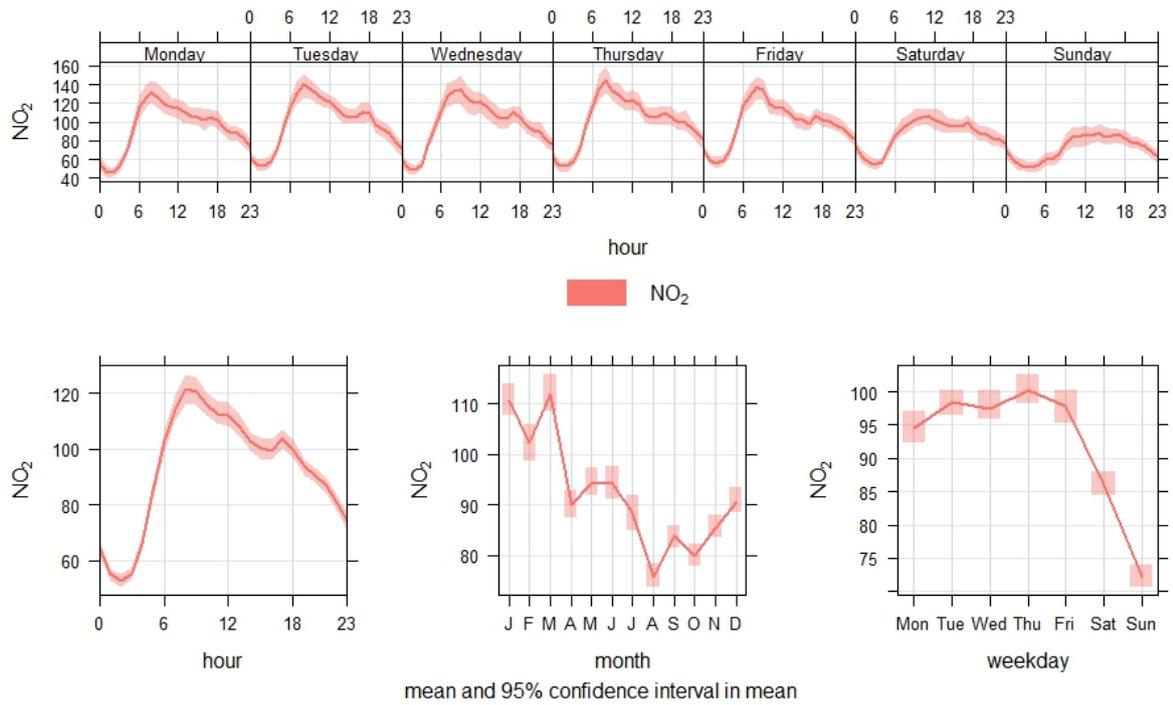
The below charts show the hourly, daily, monthly variation in pollution concentrations at each monitoring station, for each pollutant across each of our monitoring stations for the 2017 monitored data.

### Nitrogen Dioxide

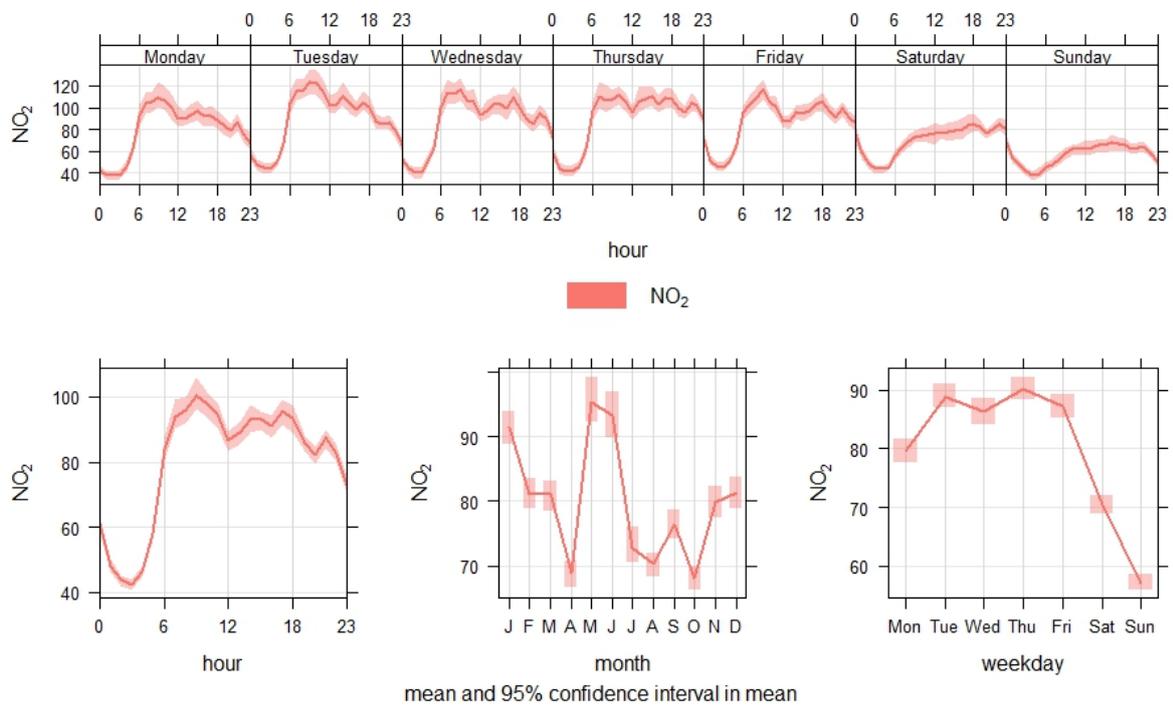
Time Variation of NO<sub>2</sub> Concentrations at Sir John Cass School 2017



### Time Variation of NO<sub>2</sub> Concentrations at Walbrook Wharf 2017



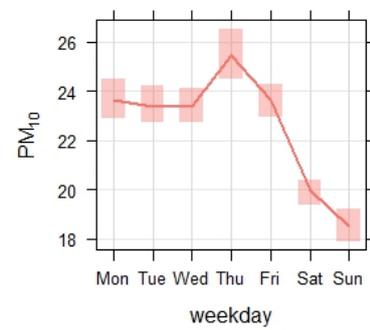
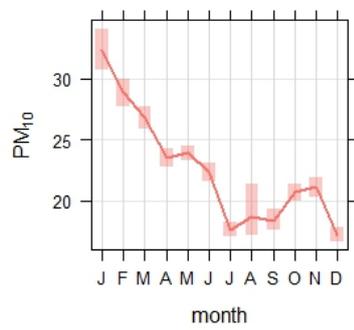
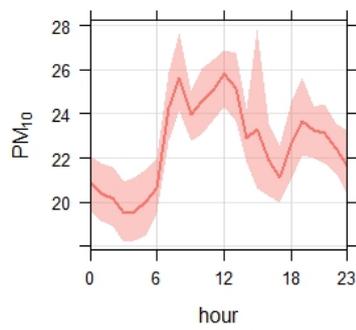
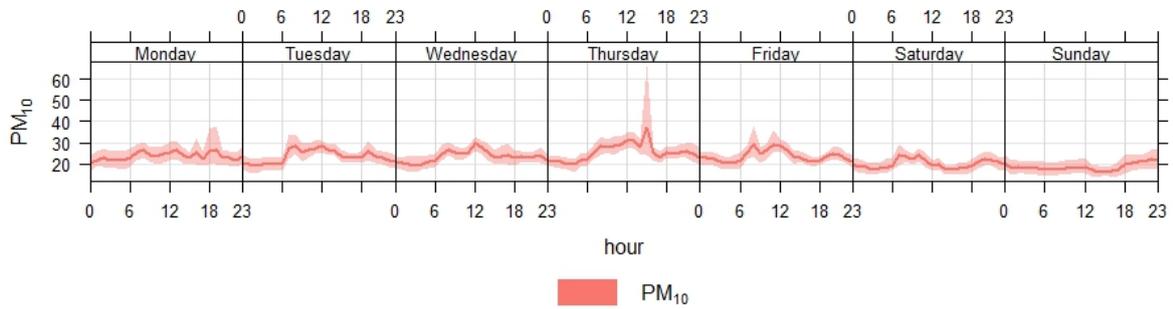
### Time Variation of NO<sub>2</sub> Concentrations at Beech Street 2017



All sites monitoring NO<sub>2</sub> clearly show a defined weekday trend in pollution concentrations with weekends having significantly lower concentrations than weekdays.

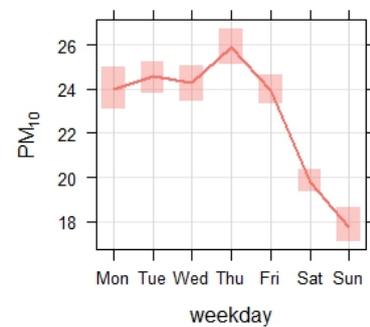
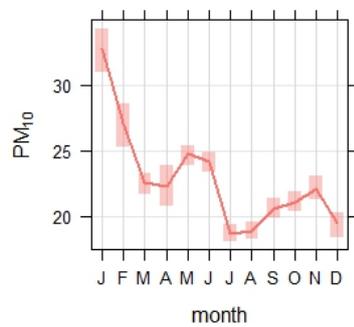
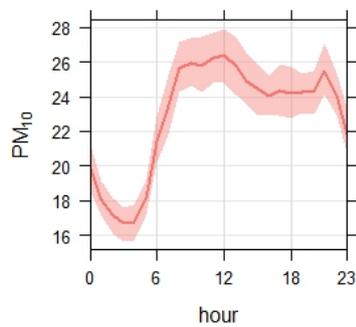
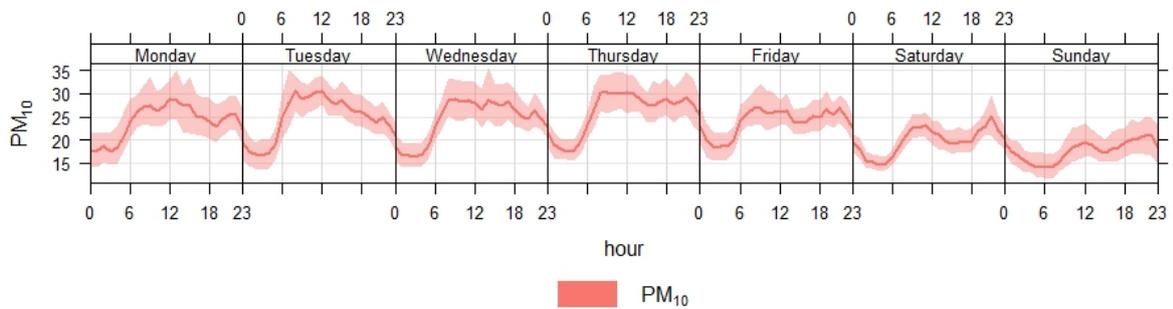
# PM<sub>10</sub>

## Time Variation of PM<sub>10</sub> Concentrations at Sir John Cass School 2017



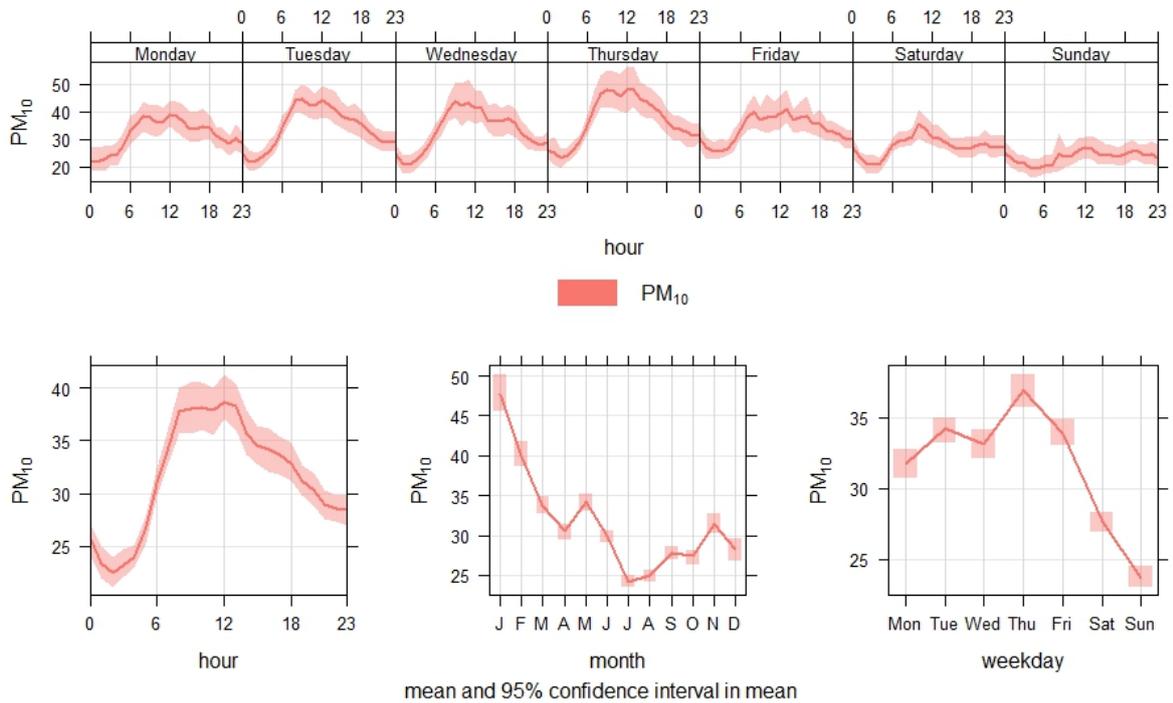
mean and 95% confidence interval in mean

## Time Variation of PM<sub>10</sub> Concentrations at Beech Street 2017



mean and 95% confidence interval in mean

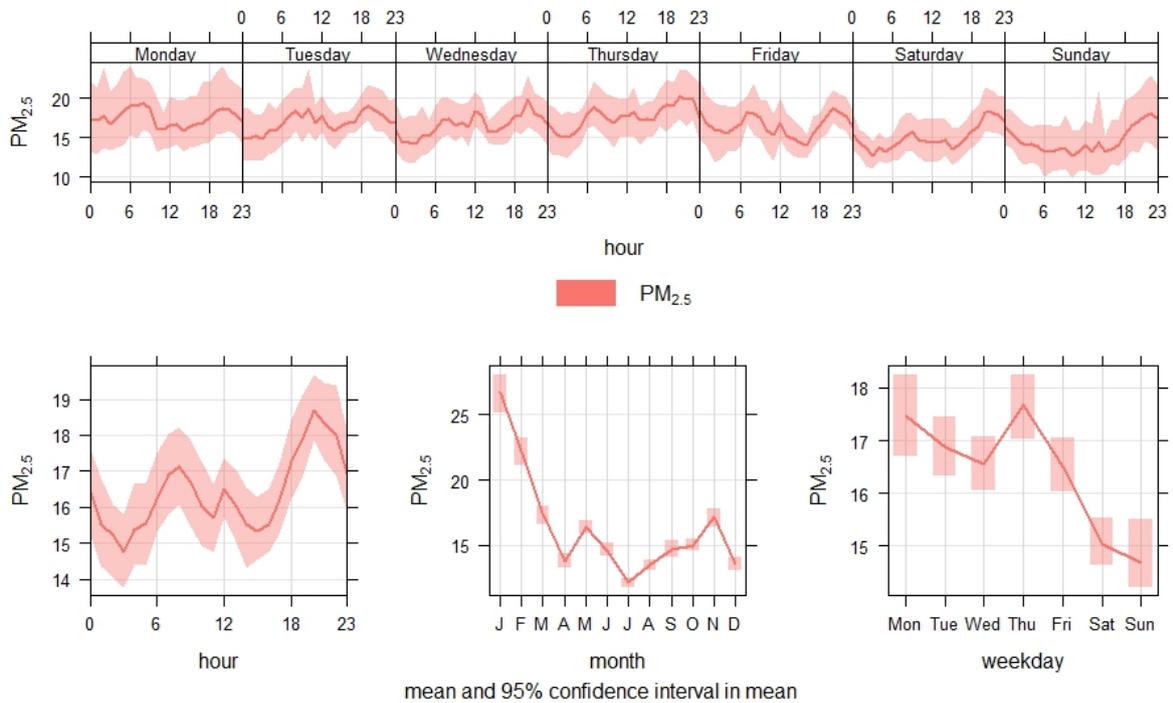
### Time Variation of PM<sub>10</sub> Concentrations at Upper Thames Street Street 2017

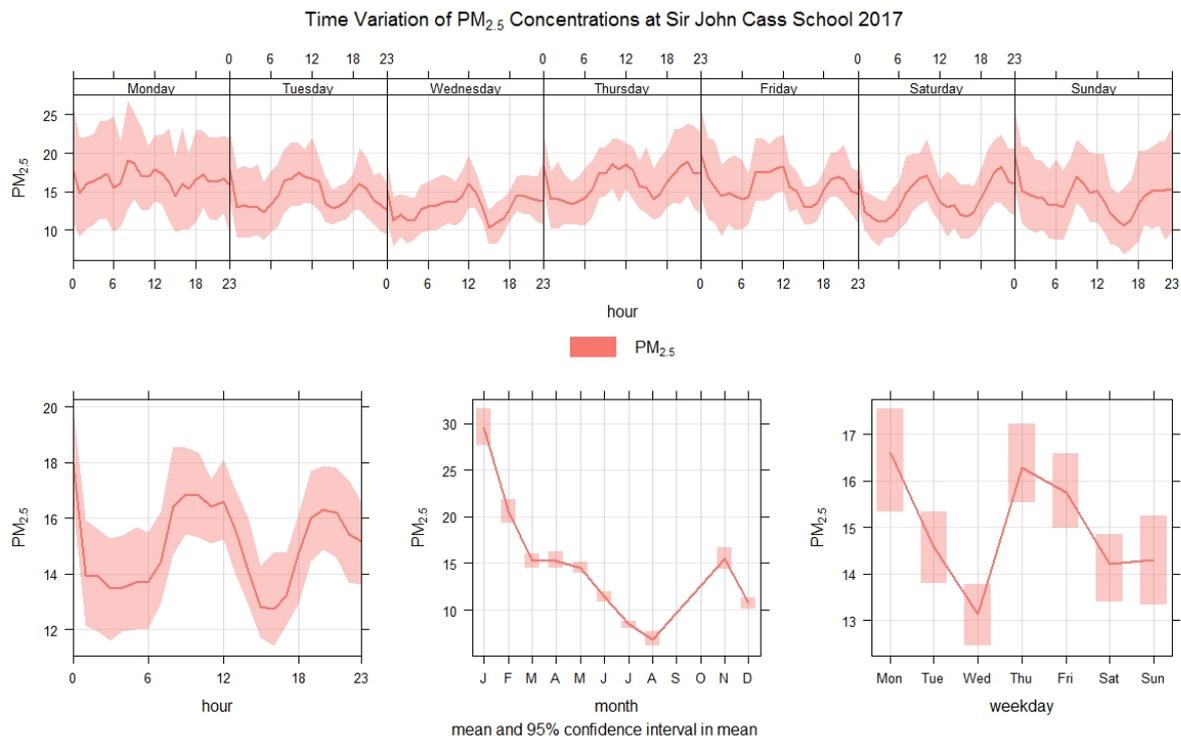


The PM<sub>10</sub> data for 2017 also shows significantly lower concentrations at the weekends across all monitoring sites.

### PM<sub>2.5</sub>

#### Time Variation of PM<sub>2.5</sub> Concentrations at Farringdon Street 2017





The PM<sub>2.5</sub> data for the roadside site (Farringdon) shows the same trend as the NO<sub>2</sub> and PM<sub>10</sub> data however the background site (John Cass School) shows a different pattern possibly as this site is less influenced by traffic emissions.

### Impact of options considered on air quality

#### a. No Change

The trends above would continue with residents experiencing lower pollution days at the weekend. The construction sector is a priority area for intervention to improve technologies associated with vehicles and plant. It is expected that interventions on Non-Road Mobile Machinery (NRMM) will result in lower AQ emissions from construction sources overall.

#### b. No noisy construction works in standard hours on Saturday

If construction sites were not to operate for noisy works on a Saturday the emissions from the extra delivery vehicles, construction plant and dust emissions from working have the potential to increase concentrations across the city across the week day standard hours, the City's streets are more congested in the week and traffic takes longer to reach its destination leading to more emissions. Construction programmes overall would be lengthened resulting in an increased number of active sites in the City at any one time and hence construction related emissions and mean concentrations could increase. Weekend levels have the potential to be lower although this would be difficult to quantify as the restriction would be for noisy works only, not all construction works.

#### c. Additional hour Monday to Friday 18:00 to 19:00

As in b. above. Weekday concentrations could be higher.

#### d. Partial permissions

##### i. Change standard noisy hours City wide to 0900 to 1400

As above in a. The trends above would continue with residents experiencing lower pollution days at the weekend. The construction sector is a priority area for intervention to improve technologies associated with vehicles and plant. It is expected that interventions on Non-Road Mobile Machinery will result in lower AQ emissions from construction sources overall.

**ii. Not permitting noisy works near residential areas**

As in b. above. If construction sites were not to operate for noisy works on a Saturday near residential areas the emissions from the extra delivery vehicles, construction plant and dust emissions from working have the potential to increase concentrations across the city across the week day standard hours when levels are already higher. Construction programmes overall would be lengthened resulting in an increased number of active sites in the City at any one time and hence construction related emissions and mean concentrations could increase.