

Surrey Eco Park Air Quality Monitoring Summary – August 2018

Introduction

The Air Quality Directive (2008/50/EC) gives limit values for different air pollutants.

We are interested in:

- Nitrogen Dioxide (NO₂) – annual mean 40 µg/m³; one-hour mean 200 µg/m³ not to be exceeded more than 18 times per year.
- Particulate Matter ; PM₁₀ (i.e. particulate matter with an aerodynamic diameter 10 micron (µm) or less) – annual mean 40 µg/m³ and a 24-hour mean of 50 µg/m³ not to be exceeded more than 35 times per year.
- PM_{2.5} (i.e. particulate matter with an aerodynamic diameter 2.5 micron (µm) or less) – there is no limit value but a target value of 25µg/m³ as the annual mean.

Measurements of these pollutants have been made according to European specifications:

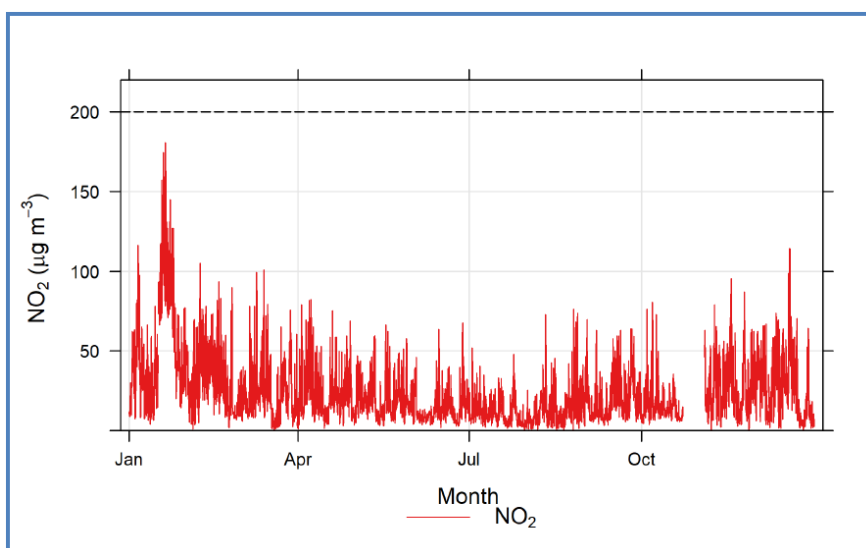
- NOx (includes different forms of nitrogen oxides) EN14211:2012
- PM (10 and 2.5) EN12341:2014
- using equipment that is DEFRA-approved.

At the Eco Park

Continuous monitoring of these pollutants is carried out at a measuring station at Haslett Road, Upper Halliford. This site is close to both the railway and the M3 and with prevailing winds from the SW it would be expected to be dominated by pollution caused by traffic.

Data measured are being compared with other sites (Sunbury Cross, Slough and sites near Heathrow), although detailed analysis has not yet been undertaken.

Recent data



This graph shows NO₂ measurements in microns per cubic metre for 2017 calendar year.

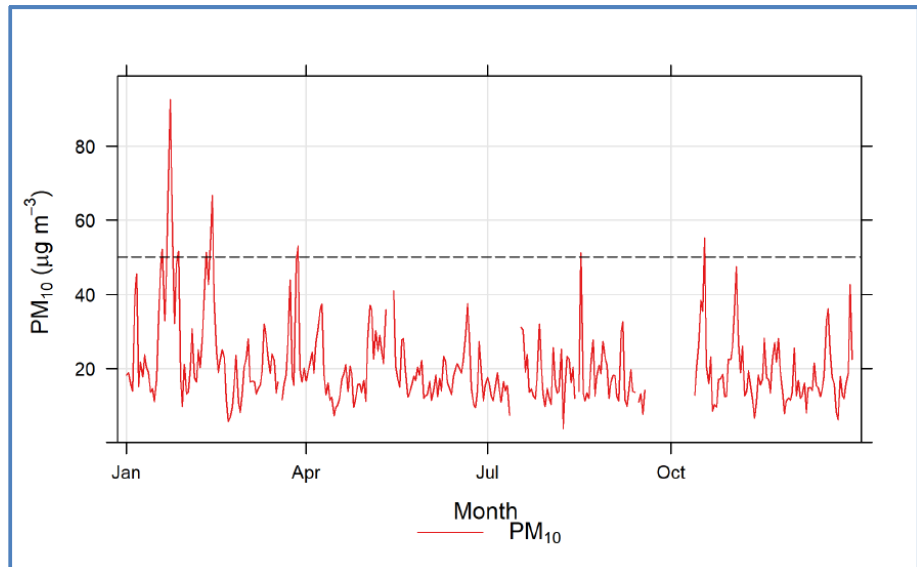
Results for 2017 show that the annual mean for NO₂ was 24 µg/m³ with no exceedences.

This means NO₂ is within permitted levels.

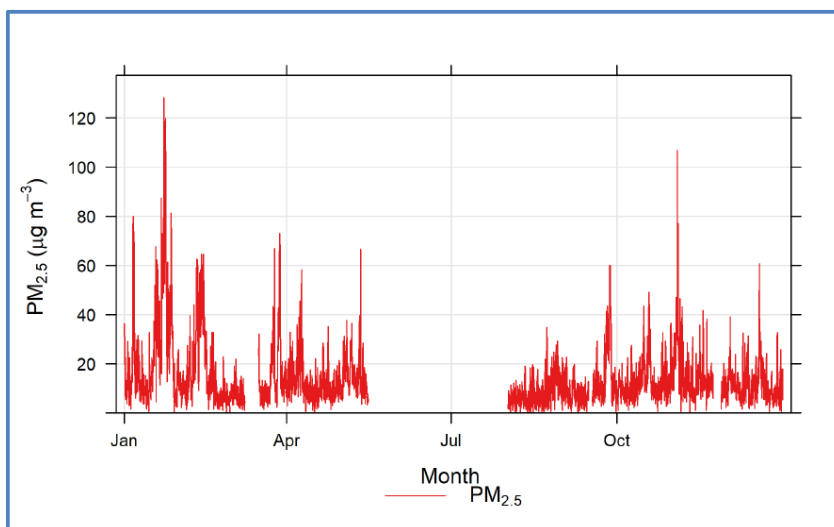
This graph shows PM₁₀ measurements in microns per cubic metre for the calendar year 2017.

PM₁₀ results for 2017 show an annual mean of 20.7 µg/m³ with 10 days exceeding 50 µg/m³.

This means that PM₁₀ measurements are within permitted levels.



Measurements at other sites tend to show similar distributions which would suggest that weather conditions are playing a part in the exceedences.



This graph shows PM_{2.5} measured in microns per cubic metre for the calendar year 2017.

Although there are not full results for PM_{2.5} for 2017 (due to outage of the equipment), the calculated annual mean is 13.3 µg/m³.