BRAMLEY, HAMPSHIRE

Air Pollution Monitoring



Overview

- An air pollution sensor (AQ Mesh) has remained in fixed position close to level crossing on C32 – since July 2017 the Parish council have been independently monitoring air pollution at the busiest junction in the village

- The Borough council have commissioned an independent consultant to assess our data

- They have also installed a far lower tech pollutant tube which only measures $NO_{2,}$ this is at the same location as the Parish Council sensor

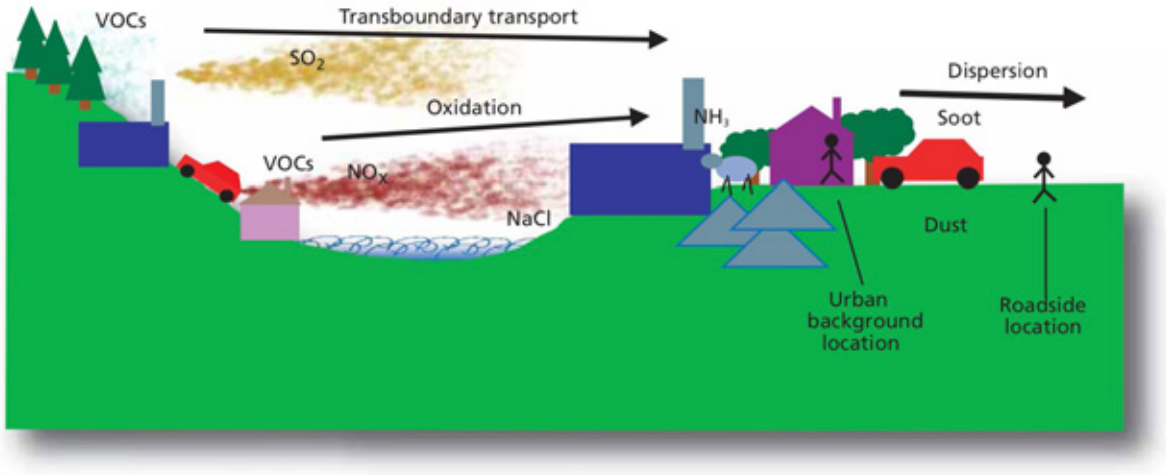
Measuring - 2019

- The 2 most important pollutants we measure are Nitrogen Dioxide (NO_2) & Particle Matter (PM10)
  - The concentration of NO2 is measured in micrograms in each cubic metre of air (µg m-3). A microgram (µg) is one millionth of a gram. A concentration of 1 µg m-3 means that one cubic metre of air contains one microgram of pollutant. To protect our health, the UK Governments set two air quality objectives for NO2 in their
- www.defra.gov.uk/environment/airquality
- Air Quality Strategy:
  - 1. **The hourly objective**, which is the concentration of NO2 in the air, averaged over a period of one hour. This is designed to make sure that we are not exposed to high concentrations of NO2 for short periods of time. High concentrations can arise in episodes, which are usually associated with particular weather conditions.
  - 2. **The annual objective**, which is the concentration of NO2 in the air, averaged over a period of a year. This aims to protect us from being exposed to NO2 over a long time.

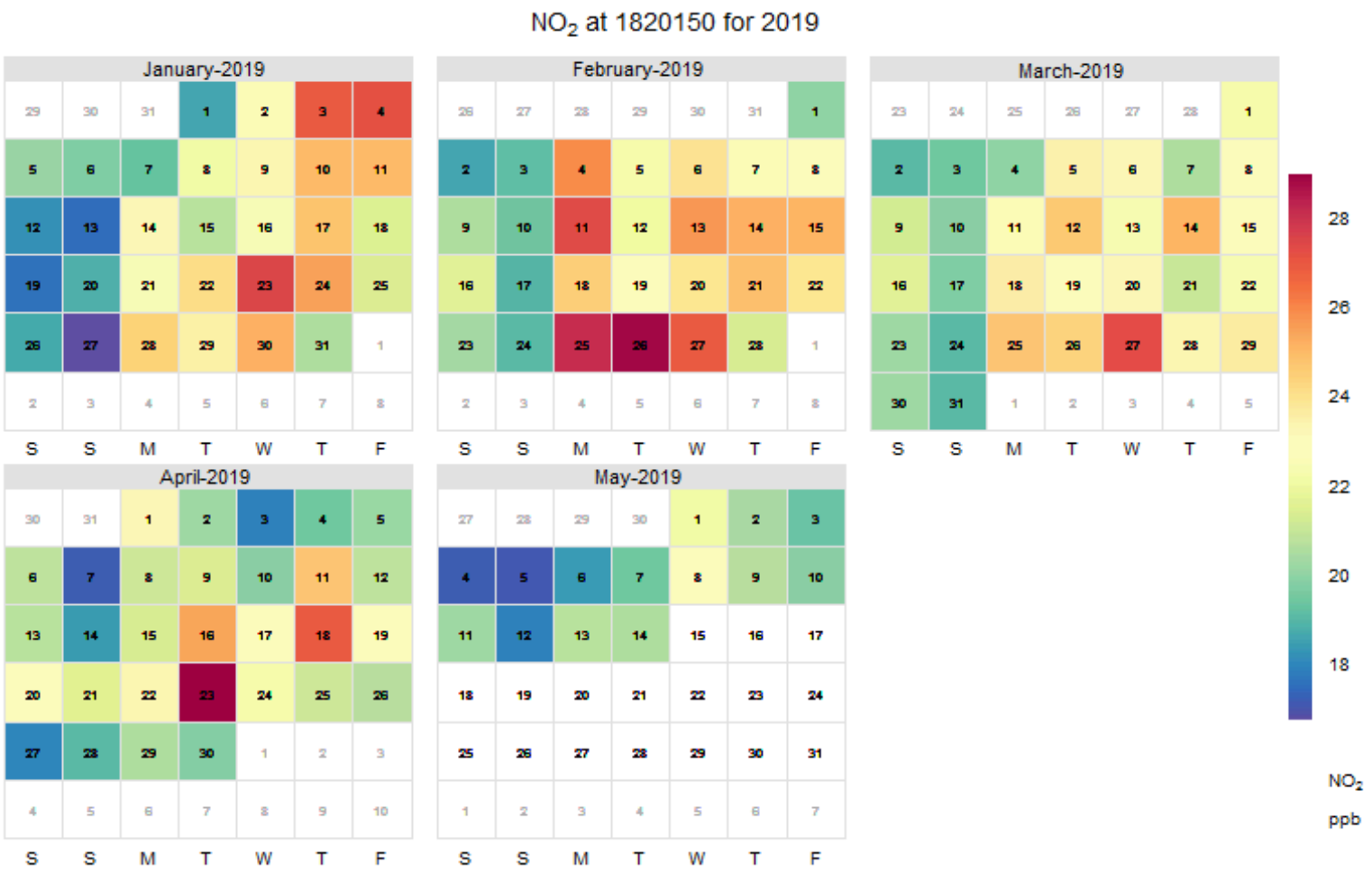
Measuring - 2019

- Particulate matter is classified according to its size and this classification is used in concentration measurements. For example, PM10 is – to a good approximation – the concentration of particles that are less than or equal to 10 µm in diameter; similarly PM2.5 describes the concentration of particles that are less than or equal to 2.5 µm in diameter.
- https://uk-air.defra.gov.uk/assets/documents/reports/aqeg/pm-summary.pdf

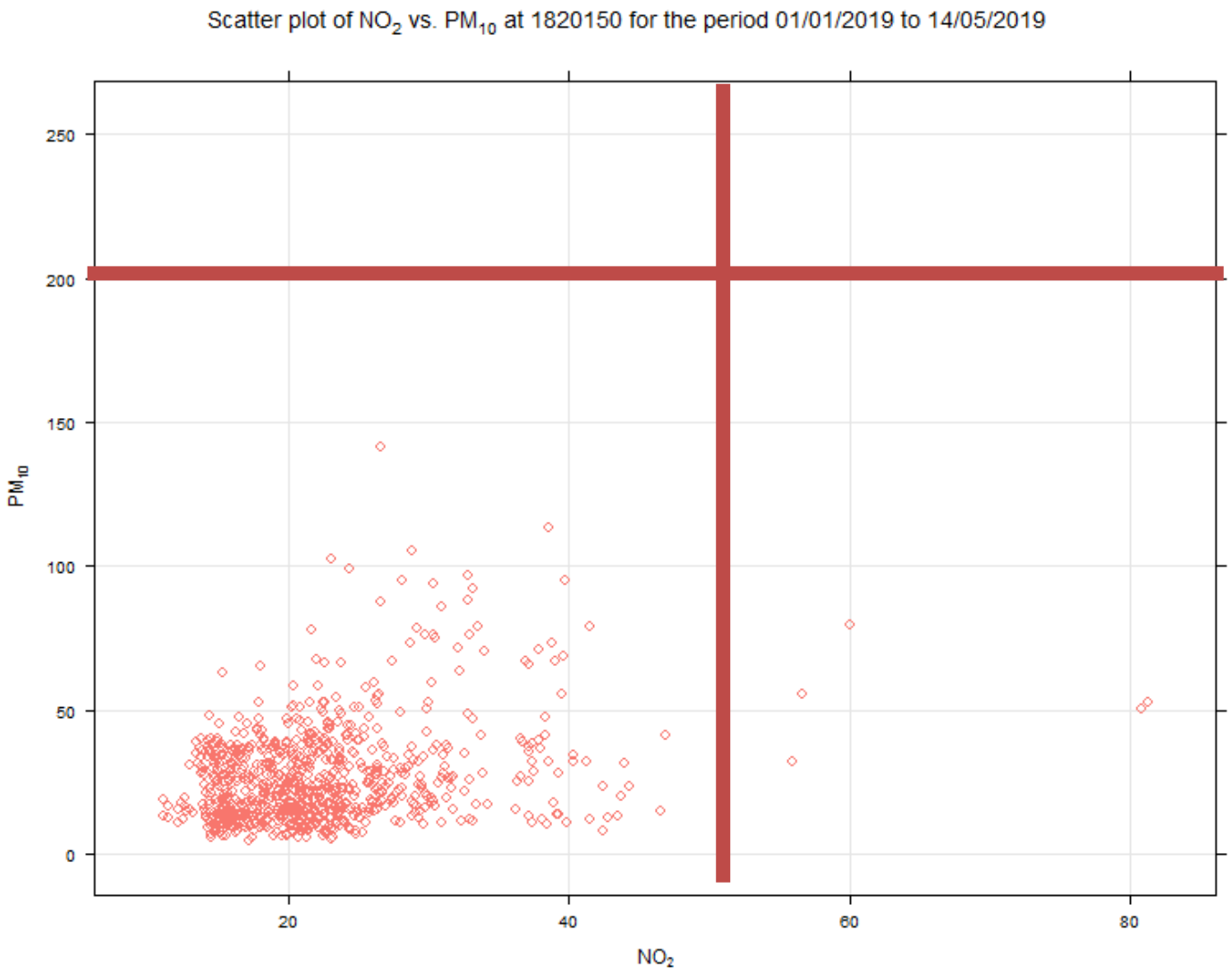
Figure 1. Sources of particulate matter.



Data – Daily averages 2019



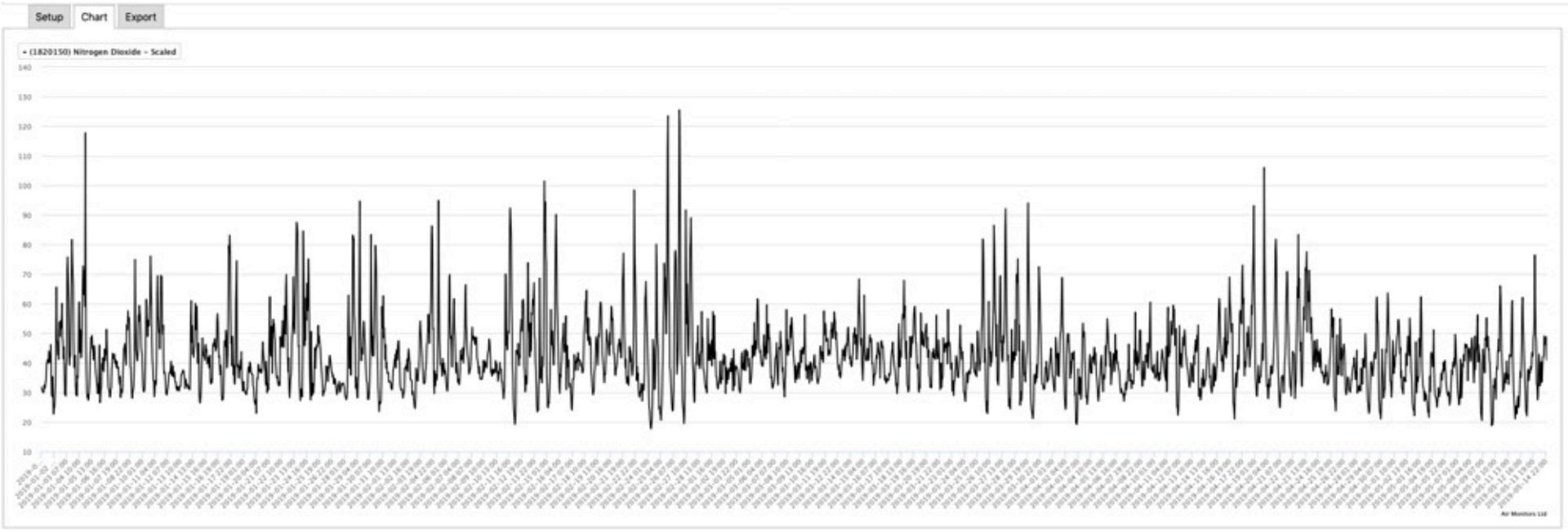
Data –



Daily maximum objectives for the UK

Data – 2019 Daily averages NO_2

The yearly average currently in 2019 for Bramley with NO_2 is 42.07 ug/m3 – therefore Bramley monitoring station is indicating values **exceeding** the UK Air Quality Strategy objectives for NO_2



Data – 2019 Daily averages NO_2 & PM10