THE ST MARYLEBONE SOCIETY NEWSLETTER

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SCHOOL MONITORS ON AIR WATCH

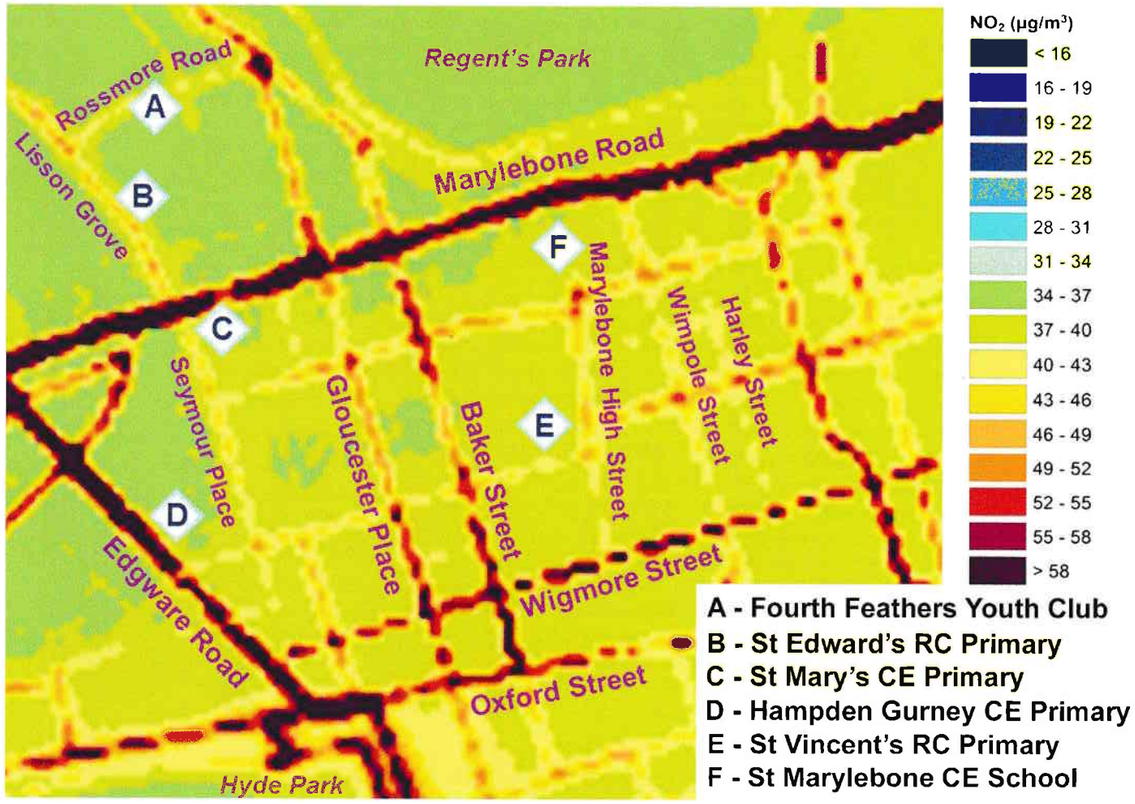

Figure 1: Map showing NO_2 concentrations in Marylebone [excerpted from London Atmospheric Emissions Inventory (LAEI) 2019] and locations of six new *Breathe London* air quality sensors near school/youth premises.

Air quality has improved a lot in the seven years since the St Marylebone Society first surveyed nitrogen dioxide (NO_2) concentrations in the Dorset Square Conservation Area. At that time, the highest concentration shown in brown-purple on the LAEI map was $>98\mu g/m^3$. As the key to Figure 1 shows, that colour denotes $>58\mu g/m^3$ in the LAEI 2019 map – a reduction of 40%. Lockdowns to control the Covid-19 pandemic during 2020-21 reduced traffic volumes and emissions further, but those have crept up again as restrictions eased. Although the air is cleaner, we have also learned more about how harmful pollution is, especially to children. WHO guidelines now recommend an annual mean target of $10\mu g/m^3$ for NO_2. That's why efforts to reduce pollution below the current legal limit must continue.

Three of the schools in Marylebone are located near roads which showed the highest NO_2 levels in 2019 (see Figure 1) and two others are near roads which exceeded the $40\mu g/m^3$ annual mean legal limit. In addition, a youth club is located next to the railway tracks which carry diesel trains into and out of Marylebone Station. Recognising parents' natural anxiety about their children's wellbeing, Councillor Barbara Arzymanow and her Marylebone colleagues have used ward budgets to install Breathe London air quality sensors near six school/youth premises. Those new sensors are now "live" and recording, so anyone can check prevailing air quality levels at those locations at any time (see page 2).

The initial NO_2 data from these new sensors were downloaded and charted for comparison against the Marylebone Road reference monitor. Figure 2 shows the average daily NO_2 from 25th March to 19th April 2022, which spans a Sahara dust pollution event and Easter holidays. No meaningful conclusions can

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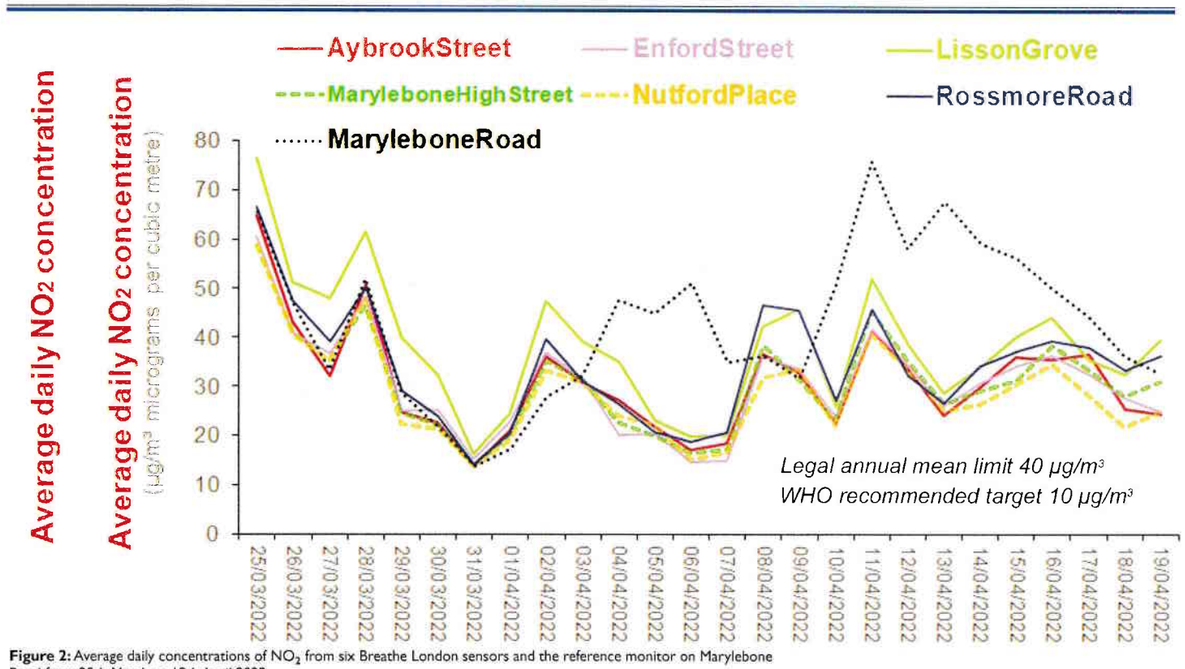

Figure 2: Average daily concentrations of NO_2 from six Breathe London sensors and the reference monitor on Marylebone Road from 25th March to 19th April 2022.

can be drawn from this short period, except to note that average daily NO_2 at most of the locations remained below $40\mu g/m^3$ on most days. In other words, Marylebone's schools may now be below the legal limit for NO_2 whereas, in May 2018, the GLA ranked the two closest to Marylebone Road as the worst polluted schools in London.

Careful ongoing analysis of the air quality data now being collected across Marylebone could provide valuable new insights into where and how we might improve matters further. The Society has asked the Council and Marylebone Forum to consider commissioning a semi-automated system to process and report results from a network of up to 15 sensors and reference monitors across the Forum Area on a monthly basis. The intention is to present air quality information from each location in a user-friendly way on the Forum's website so it's easy for the public to understand.

We hope that a bespoke reporting service will be developed and made available soon. In the meanwhile, based on Figures 1 and 2, the Report Card from the Schools' Monitors can state "Has made good progress".

Keep an eye on pollution trends at your nearest air quality sensor or monitor.

1. Visit https://www.breathelondon.org/
2. Zoom in on the map to the location you want
3. Click on that sensor after choosing NO_2 or Particulates
4. A side bar will open to show charts of the latest 7-day readings. Change the dates to see any other period.
5. Re-plot or download the chart by clicking on the icons on the top right of the chart