

## Appendix 2 –Air Quality Data for ELAC

2022

### Nitrogen Dioxide (Continuous analysers)

Site	Pollutant	Air Quality Objective	Measured As	Value/Exceedances	Objective Achieved*
Southampton Road	NO <sub>2</sub>	40 µg/m <sup>-3</sup>	Annual Mean	28* µg/m <sup>-3</sup>	Only 41% capture rate
		200 µg/m <sup>-3</sup> (not to be exceeded more than 18 times per year)	Hourly Mean	0*	See above
The Point	NO <sub>2</sub>	40 µg/m <sup>-3</sup>	Annual Mean	22 µg/m <sup>-3</sup>	Yes
		200 µg/m <sup>-3</sup> (not to be exceeded more than 18 times per year)	Hourly Mean	0	Yes
Steele Close	NO <sub>2</sub>	40 µg/m <sup>-3</sup>	Annual Mean	20* µg/m <sup>-3</sup>	53% Capture rate
		200 µg/m <sup>-3</sup> (not to be exceeded more than 18 times per year)	Hourly Mean	0 Exceedances	Yes

\*Data capture too low

### Nitrogen Dioxide (Diffusion tubes for selected locations)

Site	Pollutant	Air Quality Objective	Measured As	Value***	Objective Achieved***
Southampton Road 1	NO <sub>2</sub>	40 µg/m <sup>-3</sup>	Annual Mean	38 µg/m <sup>-3</sup>	Yes
Leigh Road / Pluto Road				26 µg/m <sup>-3</sup>	Yes
Leigh Road / Junction 13				34 µg/m <sup>-3</sup>	Yes
Belmont Road				19 µg/m <sup>-3</sup>	Yes
Hadleigh Gardens				15 µg/m <sup>-3</sup>	Yes

### PM (Continuous analyser)

Site	Pollutant	Air Quality Objective	Measured As	Value/Exceedances*	Objective Achieved*
Southampton Road**	PM <sub>10</sub>	40 µg/m <sup>-3</sup>	Annual Mean	16*	74% capture rate
		50 µg/m <sup>-3</sup> (not to be exceeded more than 35	24 Hour Mean	1	As above

		times per year)			
	PM <sub>2.5</sub>	25 µg/m <sup>-3</sup>	Annual Mean	8*	As above

**\*Data capture too low**

Note about Southampton Road and Steele Close analysers and compliance with Annual Target an hourly target for nitrogen dioxide.

Because of the time with low data capture there is insufficient data to report the annual average or if any exceedances of the hourly limit may have occurred.

With respect to the 'likely' compliance with the annual limit value at the Southampton Road analyser location and the number of exceedances of the hourly limit, we would draw attention to the annual diffusion tube value given above for Southampton Road 1, SR1. This site is located close to the analyser site and routinely measures slightly higher levels of nitrogen dioxide. The data above shows that the annual limit value in 2022 was met at SR1, from which we are reasonably satisfied that the Analyser site would also have complied in 2022. With regard to exceedances of the hourly limit value, we can refer to the advice given to local authorities by Defra in section 7.91 the [LAQM Technical Guidance \(TG16\)](#) where it is stated that at roadside locations primarily impacted by road traffic emissions, that exceedances of the hourly limit for nitrogen dioxide are unlikely where the annual average is less than 60ug.m3. As the annual average measured at SR1 in 2022 was 38ug/m3 this can be taken as good indication that exceedances of the hourly limit were unlikely to have occurred.

Particulate Matter, PM10 and PM2.5

Data capture is at 74% for 2022 however we do not have the ratified data at this time and figure may increase, however this well below our target of 95%. As such we are not placing reliance on these figures at this time. Whilst this is unfortunate, the Air Quality Management Area for Eastleigh was not declared for particulate matter. A review of the data collected for the years preceding, 2018 to 2020, shows annual average from 22 - 23ug/m3, compared to annual target of 40ug/m3. Exceedances of the 24hourly limit of 50ug/m3, have only been recorded on 6 occasions over the three years, the current target value allows for 35 exceedances *per annum*. On this basis we would not anticipate annual averages for 2022 to differ significantly from previous values, nor for the 24 hour limit.

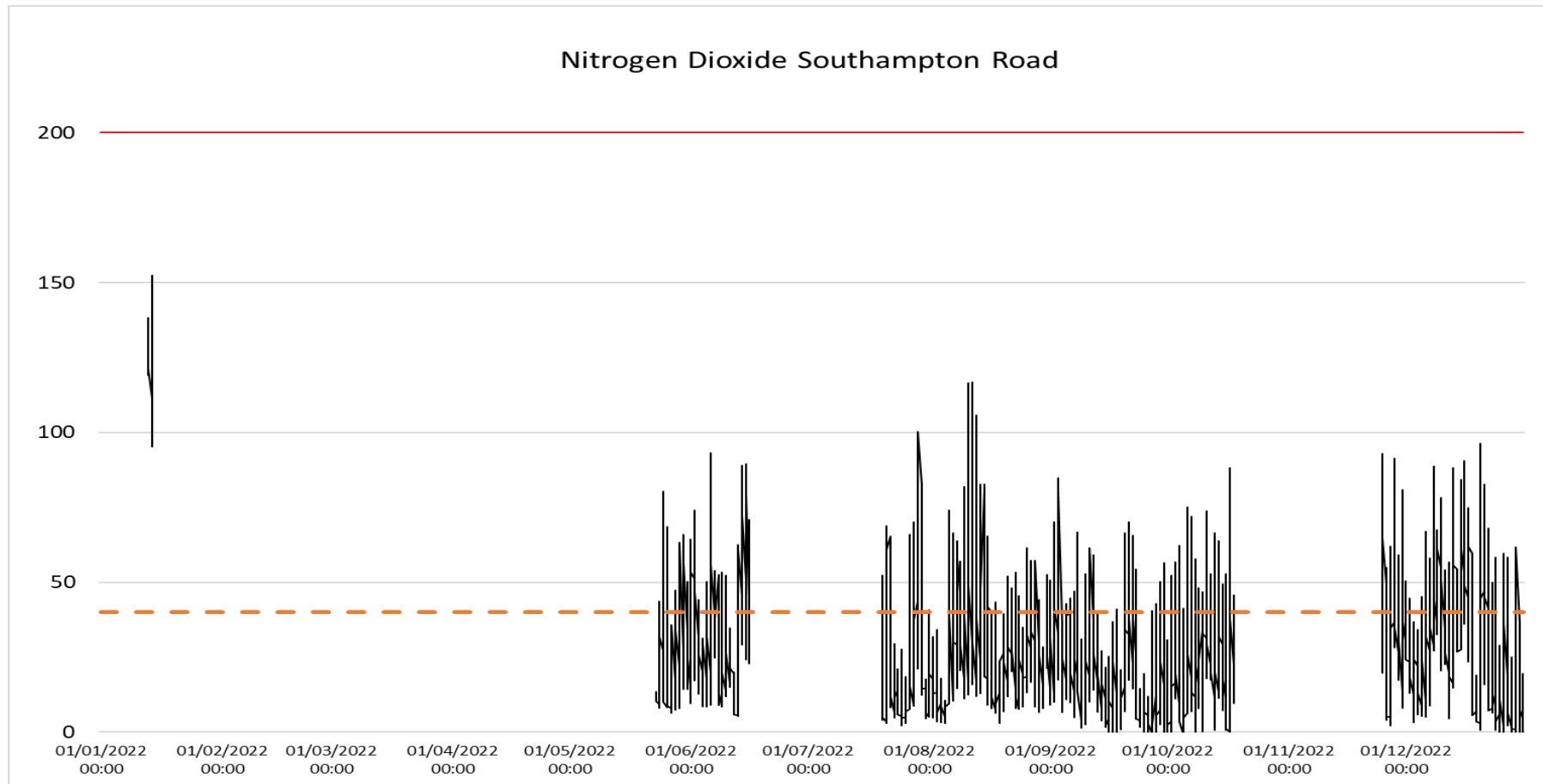
\*\*\* Please note that values have only had an estimated bias adjustment applied, so should be used as an indication only.

## Nitrogen Dioxide (Continuous Analysers)

Displayed as hourly averages

Orange dash line = Annual average objective level

Red line = Hourly average objective level

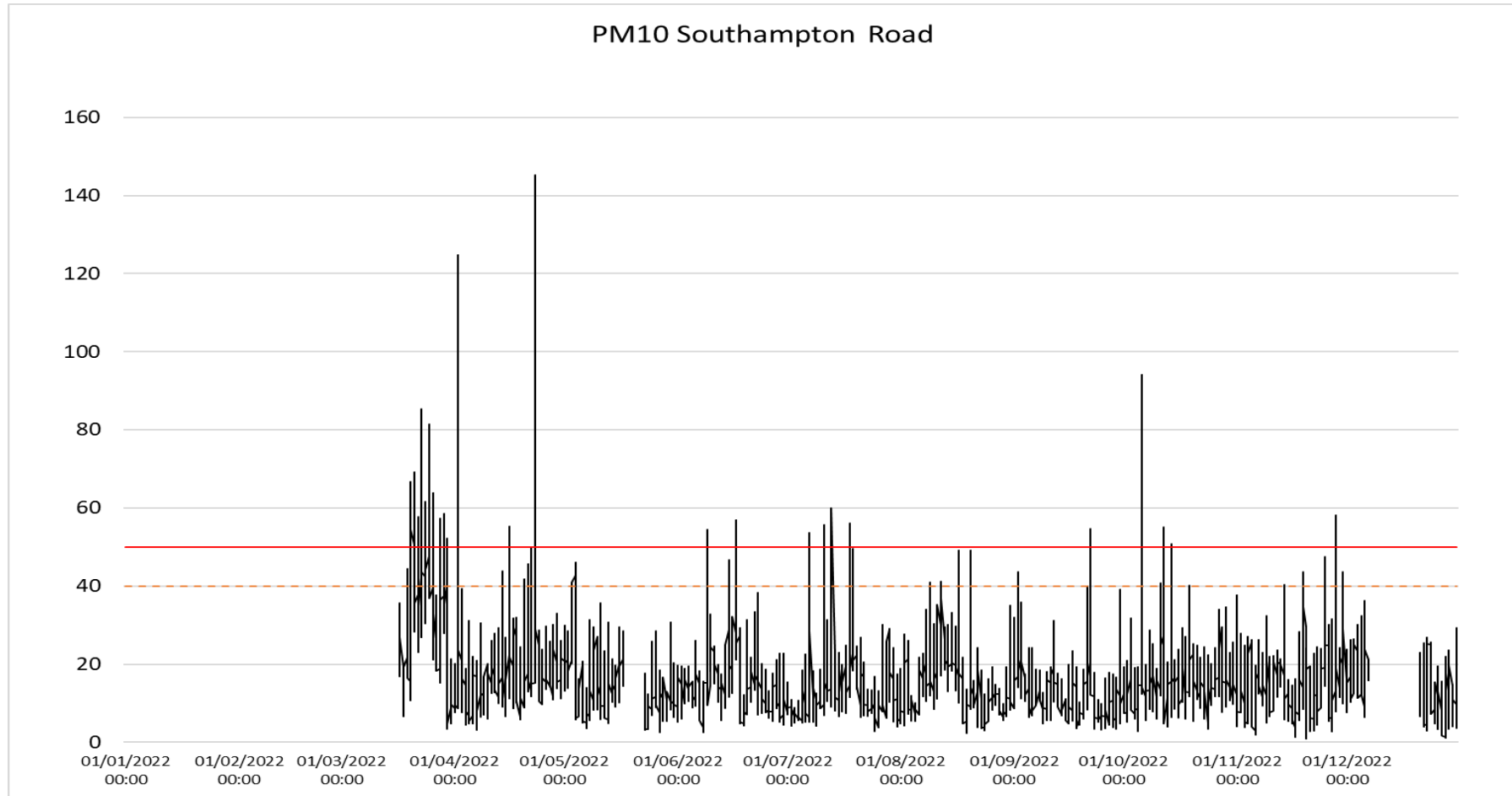


### PM10 (Continuous Analysers)

Displayed as hourly averages

Orange dash line = Annual average objective level

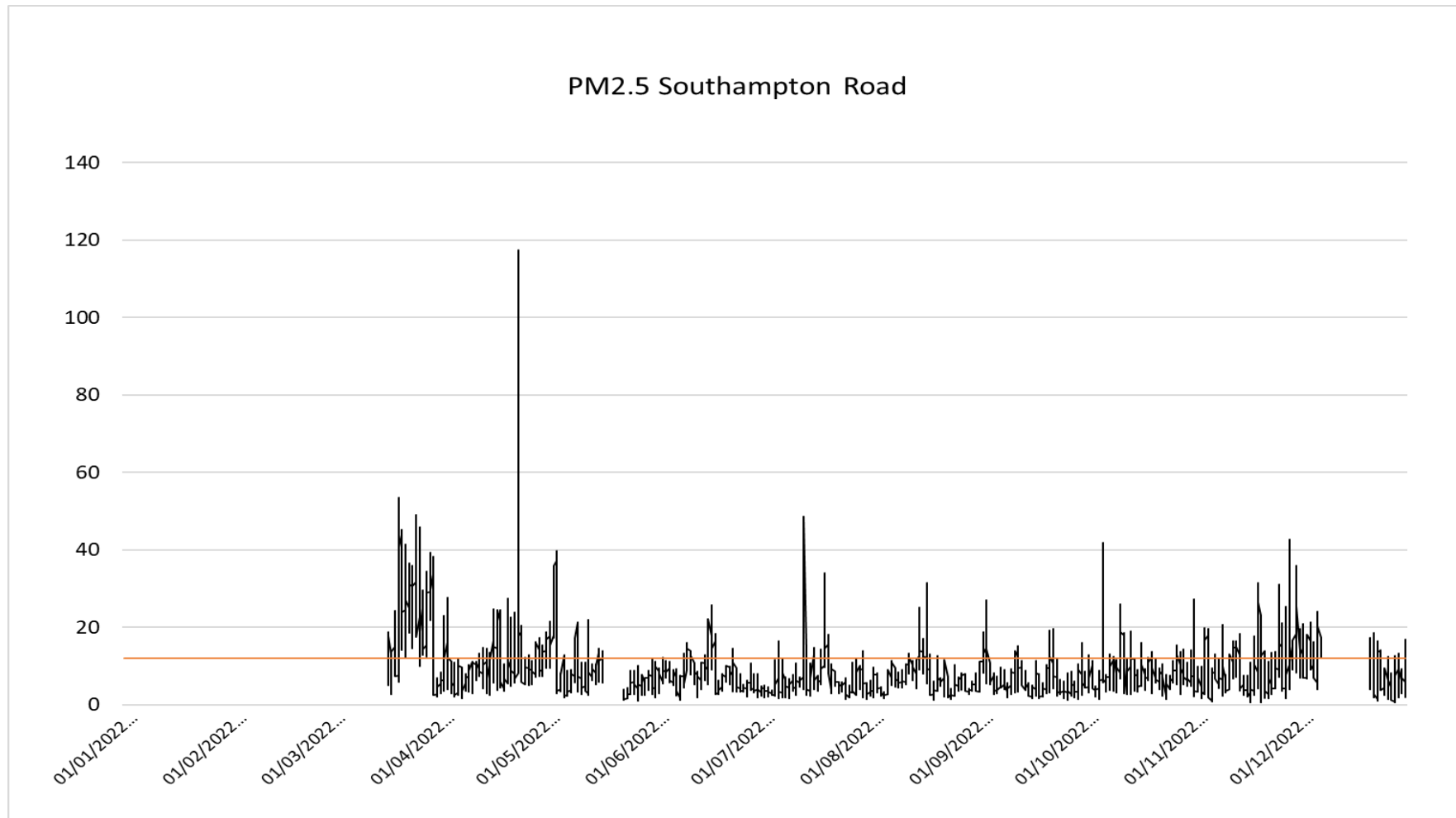
Red line = 24 Hour average objective level



### PM2.5 (Continuous Analysers)

Displayed as hourly averages

Orange line = 2028 Annual average objective level

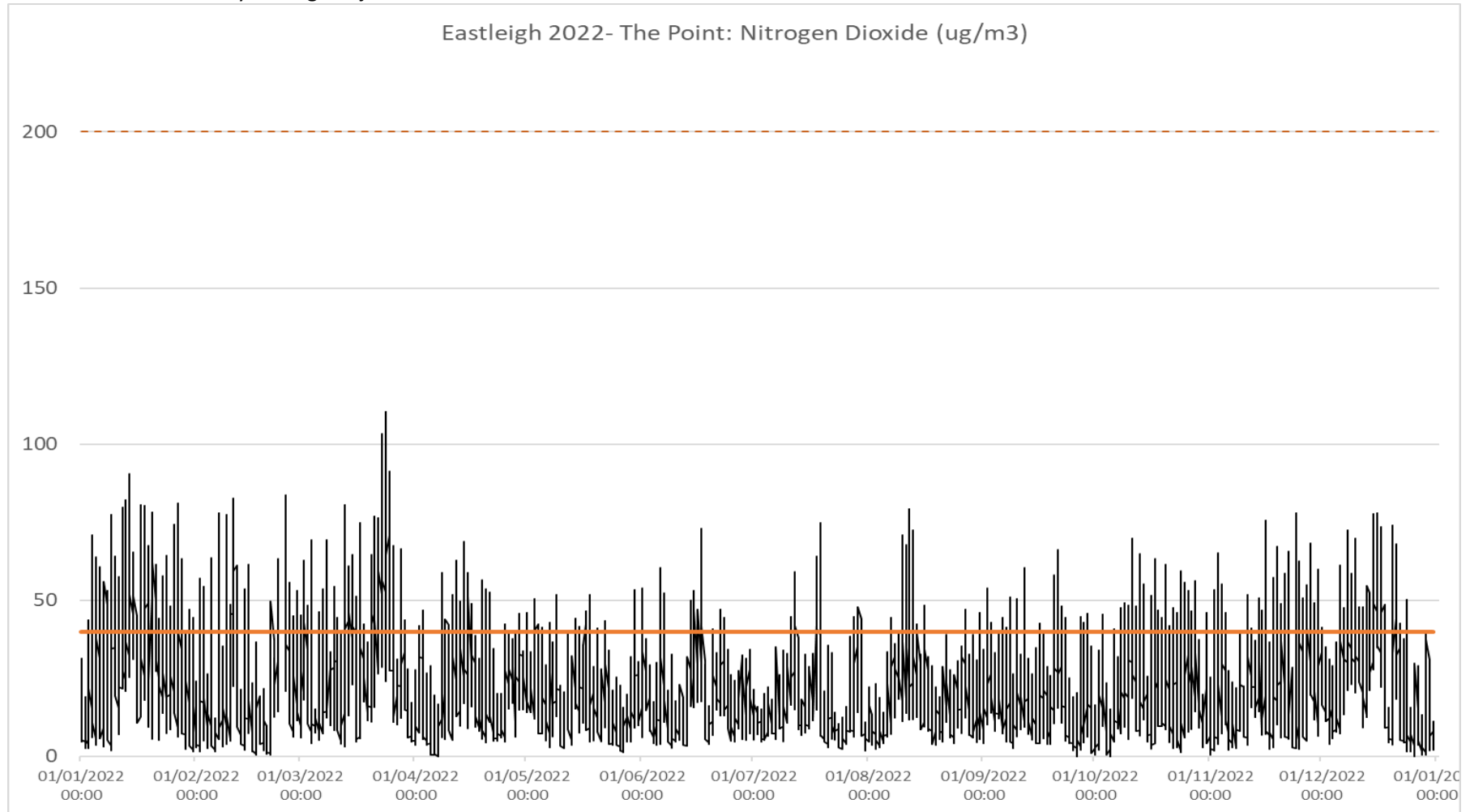


### Nitrogen Dioxide (Continuous Analysers)

Displayed as hourly averages

Orange line = Annual average objective level

Red dashed line = Hourly average objective level



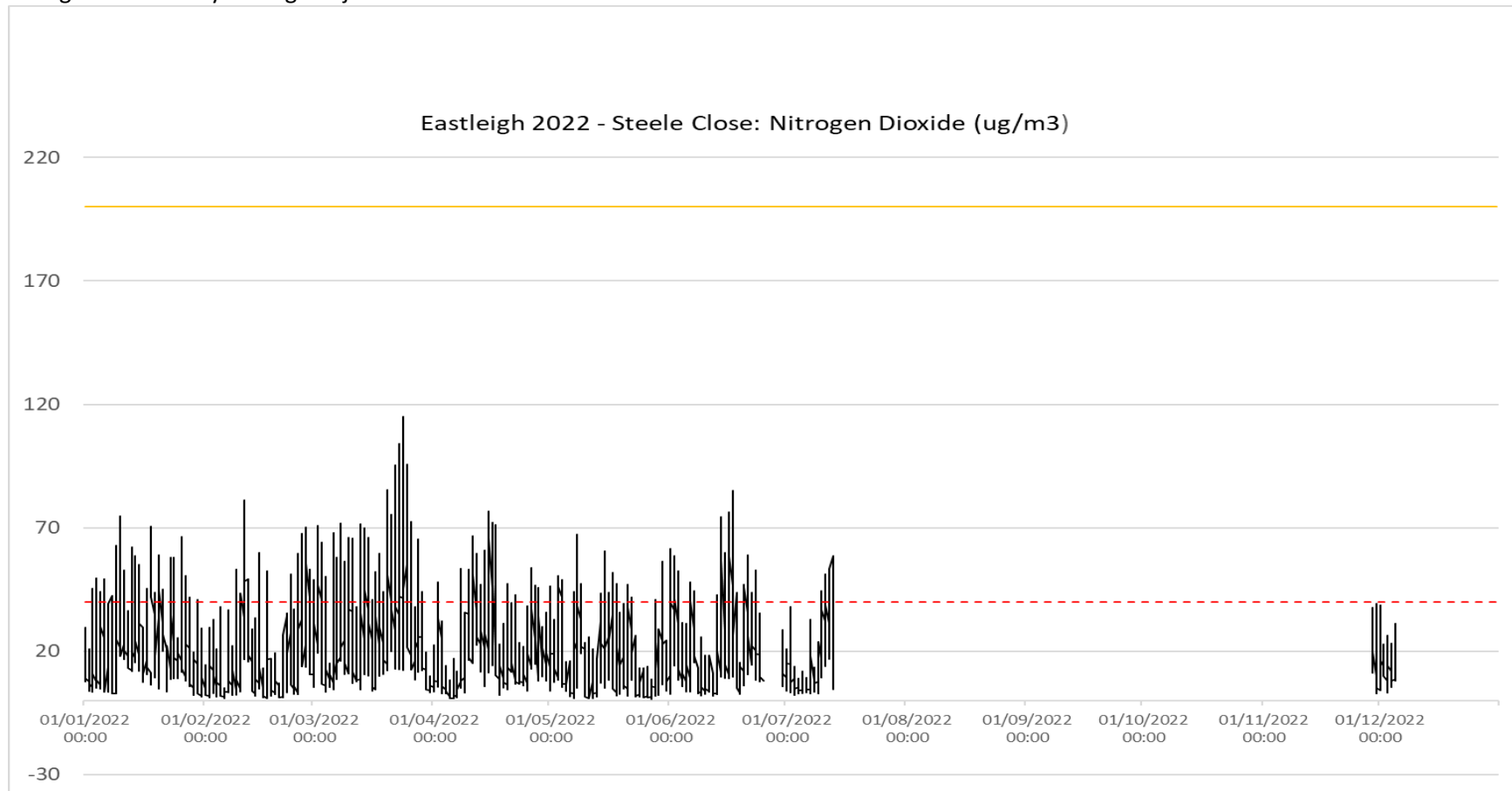
The Point

### Nitrogen Dioxide (Continuous Analysers)

Displayed as hourly averages

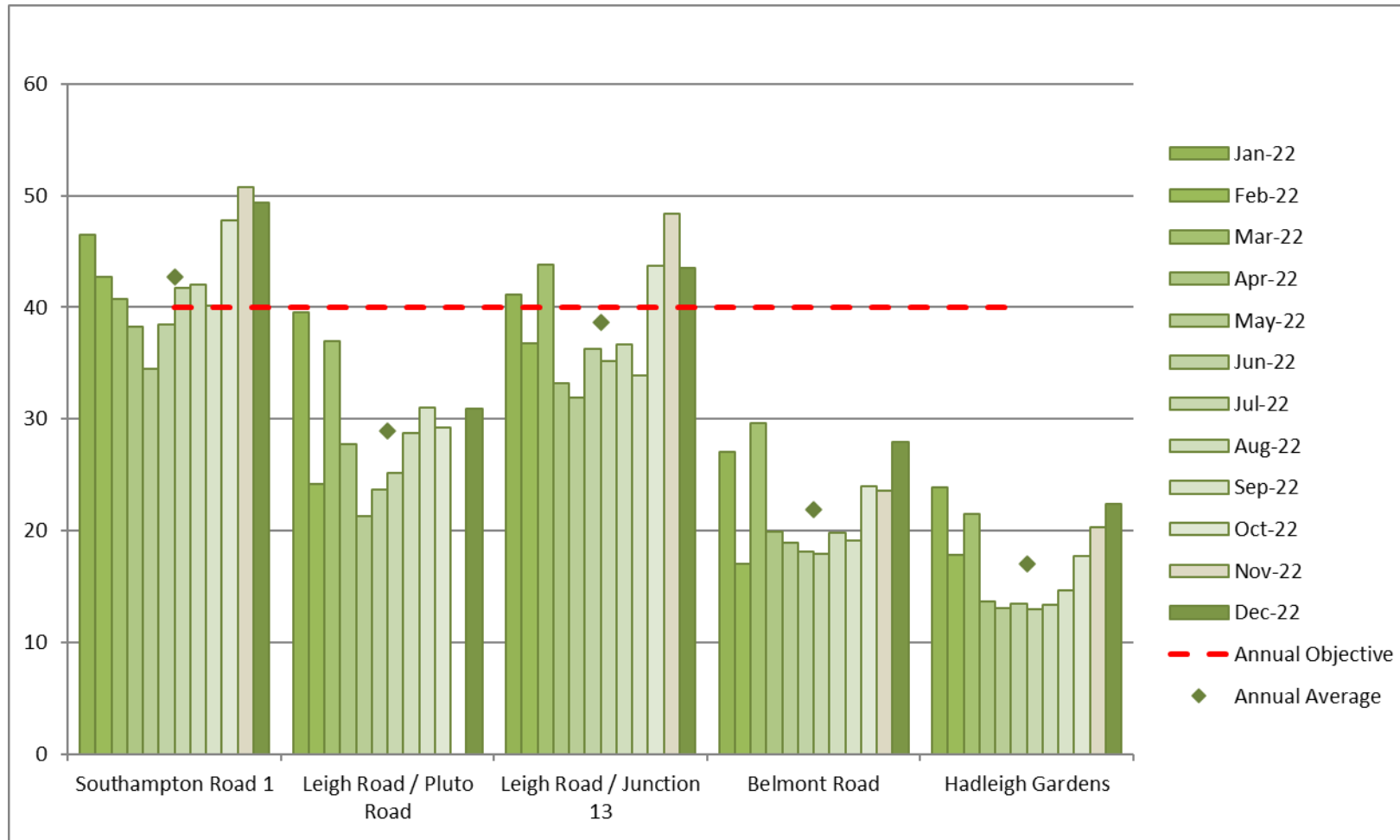
Red dash line = Annual average objective level

Orange line = Hourly average objective level



Steele Close

### Nitrogen Dioxide (Diffusion Tubes)



Selected diffusion tube sites across ELAC



**Comparison of 2022 monthly diffusion tube values with 2018 – 2020 average at 3 locations**

