

# Quarterly Data Report

## Cheltenham Borough Council

April, May, June 2021

**Period covered:** 01/04/2021 – 30/06/2021

**Report number:** 136

**Report issue date:** 21/07/2021

## Table Of Contents

Cheltenham 1150100 - Site Information	3
AQMesh Devices in Cheltenham	3
AQMesh Statement	4
AQMesh Status Flags	4
Upper Limit, Lower Limit and Concentration Limit	6
Glossary	6
April - June 2021 Data summary	8
1150100 Cheltenham reference site - Data Summary	8
College Rd AQMesh - Data Summary	12
Gloucester Rd school AQMesh - Data Summary	16
Berkeley Place AQMesh - Data Summary	20
Winchcombe Street (Fairview) AQMesh - Data Summary	24
Northern End of PE Way AQMesh - Data Summary	28
Gloucester Rd PE Way Roundabout AQMesh - Data Summary	32
Reference Station - Gloucester Rd - Data Summary	36
Southern End of PE Way AQMesh - Data Summary	40
422 High Street AQMesh - Data Summary	43
AQMesh Location Changes	47

## Cheltenham 1150100 - Site Information

The Cheltenham monitoring station is located in a roadside cabin near A40 Gloucester road.

**UK-AIR ID:** None

**EU Site ID:** None

**Environment Type:** Urban Traffic

**Altitude (metres):** None

**Site Address:** 18 Gloucester Road, Cheltenham

**Government Region:** Cheltenham

**Easting/Northing:** 560963.89, 5749904.91

**Latitude/Longitude:** 51.896565, -2.114000

**Site location URL:** <https://goo.gl/maps/196QLfK1iYj5AjDd9>

### AQMesh Devices in Cheltenham

9 AQMesh devices have been installed at various locations after co-location study, scaling factors (slope and offset) generated by co-location study during first quarter 2021 have been retrospectively applied to each AQMesh device's historical data channels from 01 January 2020 to present. The following AQMesh and reference station data summary is using scaled data at raw data rate exported from [www.airmonitors.net](http://www.airmonitors.net). Gaseous pollutant mass units are at 20 °C and 1013mb. Particulate matter concentrations are reported at ambient temperature and pressure. AQMesh data shown in this report are based on location, different AQMesh devices could be installed at the same location during different time periods.

### AQMesh Statement

AQMesh is a multi-parameter small sensor system. When operated according to manufacturer's guidance and best practice the devices should provide reasonably accurate results "out of the box". Accuracy can be further improved by either physical co-location with Reference (or Equivalence) grade monitors or Acoem's network smart calibration methods and subsequent adjustment of calibration parameters. AQMesh devices, once calibrated, can provide accuracy close to that of a Reference for Equivalence monitor, but we recommend that AQMesh data alone should not be relied upon for compliance with EU or UK air quality directives.

## AQMesh Status Flags

Flag	Description of when the status flag appears
Below Level Of Detection	The AQMesh reading is under the level of detection listed in the <a href="#">specification sheet</a> .
Stabilising	AQMesh is running automatic self stabilising which is usually 2 days in duration. This occurs when AQMesh is switched on for the first time and after gas sensor replacement.
Rebasing	AQMesh is running automatic self rebasing on gas sensors which usually lasts 2-5 days. This occurs when AQMesh is switched on for the first time and after gas sensor replacement. There is no data when this flag is present.
Rebased	This status flag replaces the rebasing status flag once AQMesh finishes rebasing, the readings during the rebasing process are retrospectively populated with the rebased status flag.
Optimising	Occurs when a pod is power-cycled for more than an hour i.e. Maintenance or power failure.
Communication Error	AQMesh is unable to upload data successfully. This status will require investigation.
Failed Sensor	AQMesh gas sensor has been determined as failed and requires a replacement sensor to be installed.
Cross Gas Error	This status flag appears when a sensor fails which is relied upon for the removal or interferences on another sensor, e.g. NO <sub>2</sub> sensor failure will affect O <sub>3</sub> reading. O <sub>3</sub> readings are then marked with the Cross Gas Error status flag.
Destabilised	The system has detected that the sensor may be compromised due to odd fluctuations in temperature and pressure.
Extreme Environment	This status flag appears when the manufacturer determines the combination of extremes in climate in which the electrochemical sensors do not provide consistent outputs. As such precise and accurate measurements are not possible.
Condensation	The NDIR sensor is affected by condensation on the detector. This flag is exclusive to CO <sub>2</sub> data.
Deliquescence	This status flag appears when not using the heated inlet option. Outlying data points caused by hygroscopic particle size growth will be flagged following analysis of the particle count distribution. This flag is exclusive to PM data.

Misread	Occurs when the particle counter misreads. It is exclusive to PM data.
Greater Than Upper Limit	Occurs when the reading is above the device measurement range.
Greater Than Concentration Limit	This status flag appears when data is above the concentration limit, set for ambient air measurement.
Less Than Concentration Limit	This status flag appears when data is lower than the device concentration limit, set for ambient air measurement.
Less Than Lower Limit	This status flag appears when reading is lower than the device measurement range.
PM <sub>1</sub> Greater Than PM <sub>2.5</sub>	Prescaled PM <sub>1</sub> readings are higher than PM <sub>2.5</sub> readings.
PM <sub>1</sub> Greater Than PM <sub>10</sub>	Prescaled PM <sub>1</sub> readings are higher than PM <sub>10</sub> readings.
PM <sub>2.5</sub> Greater Than PM <sub>10</sub>	Prescaled PM <sub>2.5</sub> readings are higher than PM <sub>10</sub> readings.
Depletion Event	This status flag appears when there is abundant NO <sub>x</sub> level in the air and AQMesh reports negative O <sub>3</sub> levels. O <sub>3</sub> readings should be considered and truncated to zero under this status flag.
Calibration	Device is under a calibration process.
Unknown Error	AQMesh encounters an unknown error. This is usually caused by a hardware related problem and requires further investigation.

## Upper Limit, Lower Limit and Concentration Limit

This table shows the upper limit, lower limit and concentration limits that are set for AQMesh measured pollutants. The status flags “Greater Than Upper Limit”, “Greater Than Concentration Limit”, “Less Than Concentration Limit” and “Less Than Lower Limit” in the data summary are determined by values in this table.

<b>AQMesh channels</b>	<b>Upper limit</b>	<b>High concentration limit</b>	<b>Low concentration limit</b>	<b>Lower limit</b>	<b>Unit</b>
<b>NO</b>	1000	800	-5	-100	ppb
<b>NO<sub>2</sub></b>	1000	300	-5	-100	ppb
<b>PM<sub>10</sub></b>	3000	None	None	-100	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub></b>	3000	None	None	-100	µg m <sup>-3</sup>
<b>PM<sub>1</sub></b>	1000	None	None	-100	µg m <sup>-3</sup>

## Glossary

**Data Capture Rate** - The amount of data captured as a percentage of the total possible in any period.

**Valid Data Rate** - The proportion of data considered valid after any invalid Status Flags have been considered and any Outliers have been removed.

**Outliers** - Data points which have been removed from a data set other than by predetermined Status Flags by a manually applied ratification process.

**Status Flag** - A marker applied to each data point based on a number of predetermined conditions which describe a condition which may render the data valid or invalid.

**Pre-Scaled Data** - Data which has not (yet) been subject to offset or slope adjustments as a result of a Calibration Process.

**Scaled Data** - Pre-Scaled data which has been subsequently adjusted by application of an offset and/or slope determined by a Calibration Process.

**Reference** - Data generated by a certified monitor complying with the requirements of an EU, UK or US Reference method.

**Equivalence** - A monitor which has been certified Equivalent to a EU, UK or US Reference Method according to the relevant Guidance on Equivalence Designation.

**Co-location Study** - A process of comparing data from a candidate sensor device with that of a Reference (or Equivalent) monitor for a period of time at a fixed location.

**Sensor Calibration Process** - A Co-location Study where a candidate sensor or sensor system is compared with a Reference (or Equivalence) grade monitor for a period of time and the candidate data is adjusted by application of an offset and/or slope in order to improve the level of agreement with the reference data source.

**Scale Separation** - A process of separating the local and regional concentration signals for an observed pollutant species within a network of sensors.

**Network Calibration process** - A Calibration Process applied to a group of sensors within a specified geographical area, using a common (regional) signal from ambient air as derived by a Scale Separation technique.

**Emissions Indices** - The amount of a criteria pollutant produced (or emitted) expressed as a percentage of the amount of fuel combusted. This is normally calculated as a ratio of the criteria pollutant concentration over that of CO<sub>2</sub>.

**Criteria Air Pollutant** - A gaseous, particulate matter, aerosol or vapour consisting of a material designated as a controlled air pollutant within an EU, UK or US Air Quality Directive.

**API (Application Program Interface)** - A protocol allowing manual or automated, third party queries of data within a database and returning a predetermined response format. e.g. (JSON, CSV etc)

**Relative Concentration** - The concentration of an airborne pollutant expressed as ppb, ppm, etc

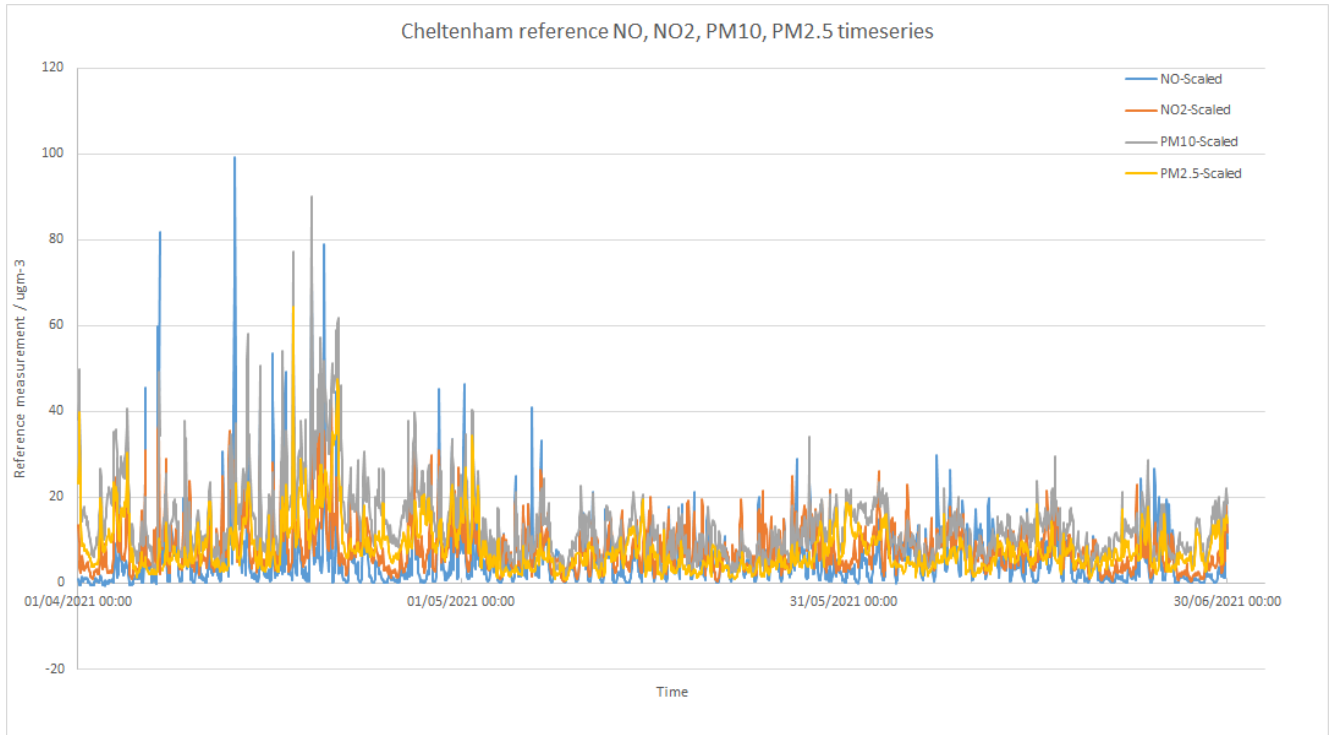
**Absolute Concentration** - The concentration of an airborne pollutant expressed in mg/m<sup>3</sup>, ug/m<sup>3</sup>, mole/m<sup>3</sup> etc.

**OpenAir** - A set of data analysis tools using advanced data processing in "R"

**"R"** - R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

## April - June 2021 Data summary

### 1150100 Cheltenham reference site - Data Summary



(Graph shows hourly averaged data)

This reference site has Thermo 42i NOx analyser and Palas Fidas PM analyser installed.

<b>NO valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Data capture rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	293.20	182.30	49.90	$\mu\text{g m}^{-3}$
<b>Min</b>	-0.60	0.10	0.10	$\mu\text{g m}^{-3}$
<b>Median</b>	3.00	5.00	4.70	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	7.94	6.82	6.80	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	None	None	None	



(Min, Max & Median based on 15 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Data capture rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	86.50	50.10	49.80	µg m <sup>-3</sup>
<b>Min</b>	1.80	0.60	1.00	µg m <sup>-3</sup>
<b>Median</b>	14.20	12.30	12.30	µg m <sup>-3</sup>
<b>Monthly mean</b>	18.73	14.53	13.45	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Data capture rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	39.90	21.48	23.58	µg m <sup>-3</sup>
<b>Min</b>	9.26	5.11	5.62	µg m <sup>-3</sup>
<b>Median</b>	17.90	9.31	10.85	µg m <sup>-3</sup>
<b>Monthly mean</b>	19.17	10.36	11.63	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

<b>PM<sub>2.5</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Data capture rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	23.33	17.08	17.99	µg m <sup>-3</sup>
<b>Min</b>	3.35	2.39	3.01	µg m <sup>-3</sup>
<b>Median</b>	9.23	5.16	6.74	µg m <sup>-3</sup>
<b>Monthly mean</b>	10.86	6.04	7.07	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

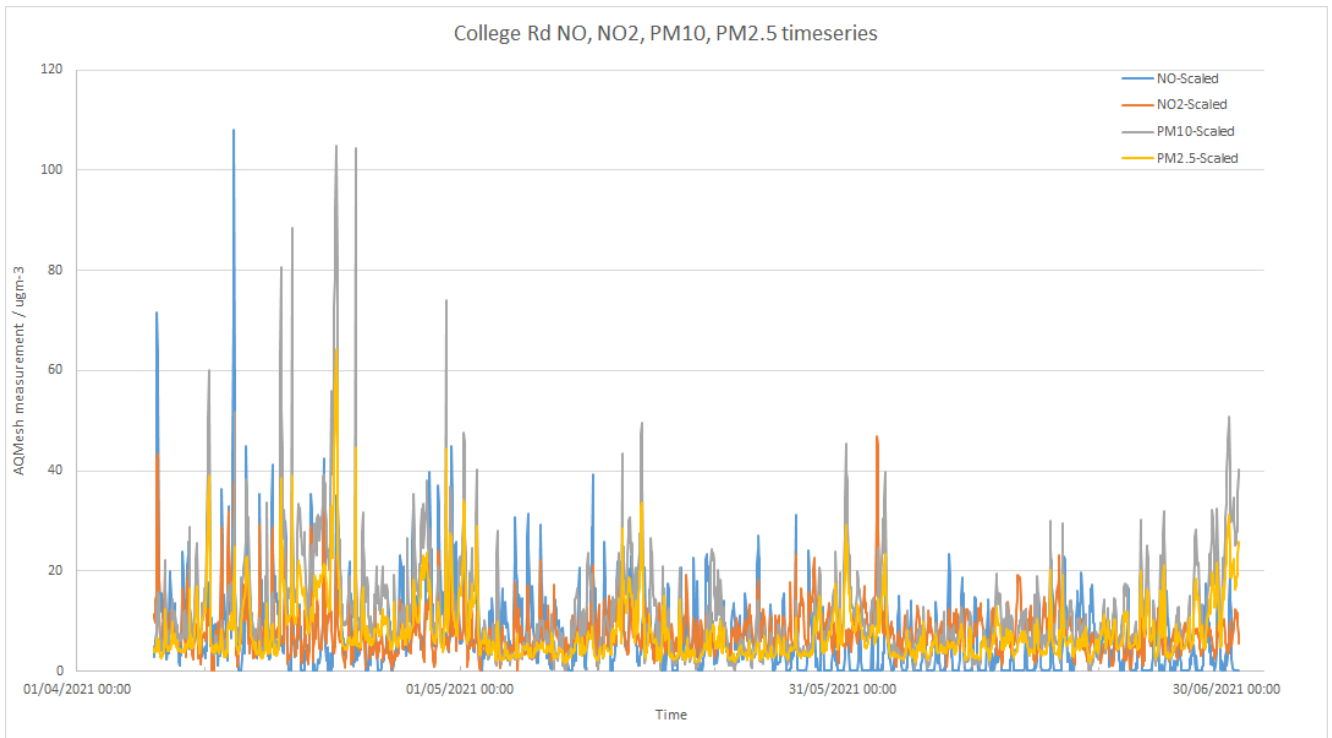
(Min, Max & Median based on daily data)

NOTE: Negative reading shown in the above tables are genuine data from the reference instrument. Negative values could be the noise readings when ambient pollution level is very low.

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
<b>NO2 hourly mean</b>	0	0	0	0	Hourly mean, 200 $\mu\text{g m}^{-3}$ not to be exceeded more than 18 times a year
<b>PM10 daily mean</b>	0	0	0	0	24 hour mean, 50 $\mu\text{g m}^{-3}$ not to be exceeded more than 35 times a year

Annual exceedance	Q1 up to date average	Q2 up to date average	Year to date average	Exceeded annual limit?	UK AQ Objective
<b>NO2 annual mean (up to date)</b>	19.40	15.16	17.28	No	Annual mean limit 40 $\mu\text{g m}^{-3}$
<b>PM10 annual mean (up to date)</b>	16.10	12.01	14.05	No	Annual mean limit 40 $\mu\text{g m}^{-3}$
<b>PM2.5 annual mean (up to date)</b>	10.31	8.02	9.16	No	Annual mean limit 25 $\mu\text{g m}^{-3}$

## College Rd AQMesh - Data Summary



(Graph shows hourly averaged data)

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	91.86%	85.22%	58.06%	None
<b>Max</b>	173.10	78.50	42.40	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	8.75	7.30	1.65	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	12.91	9.30	4.83	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag:</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 15 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	99.83%	99.73%	100.00%	None
<b>Max</b>	83.00	44.70	89.70	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.90	µg m <sup>-3</sup>
<b>Median</b>	12.70	13.35	13.55	µg m <sup>-3</sup>
<b>Monthly mean</b>	16.03	14.77	14.67	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	None	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	40.11	21.25	34.61	µg m <sup>-3</sup>
<b>Min</b>	7.20	2.58	2.98	µg m <sup>-3</sup>
<b>Median</b>	15.48	7.69	8.69	µg m <sup>-3</sup>
<b>Monthly mean</b>	16.91	9.05	10.06	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

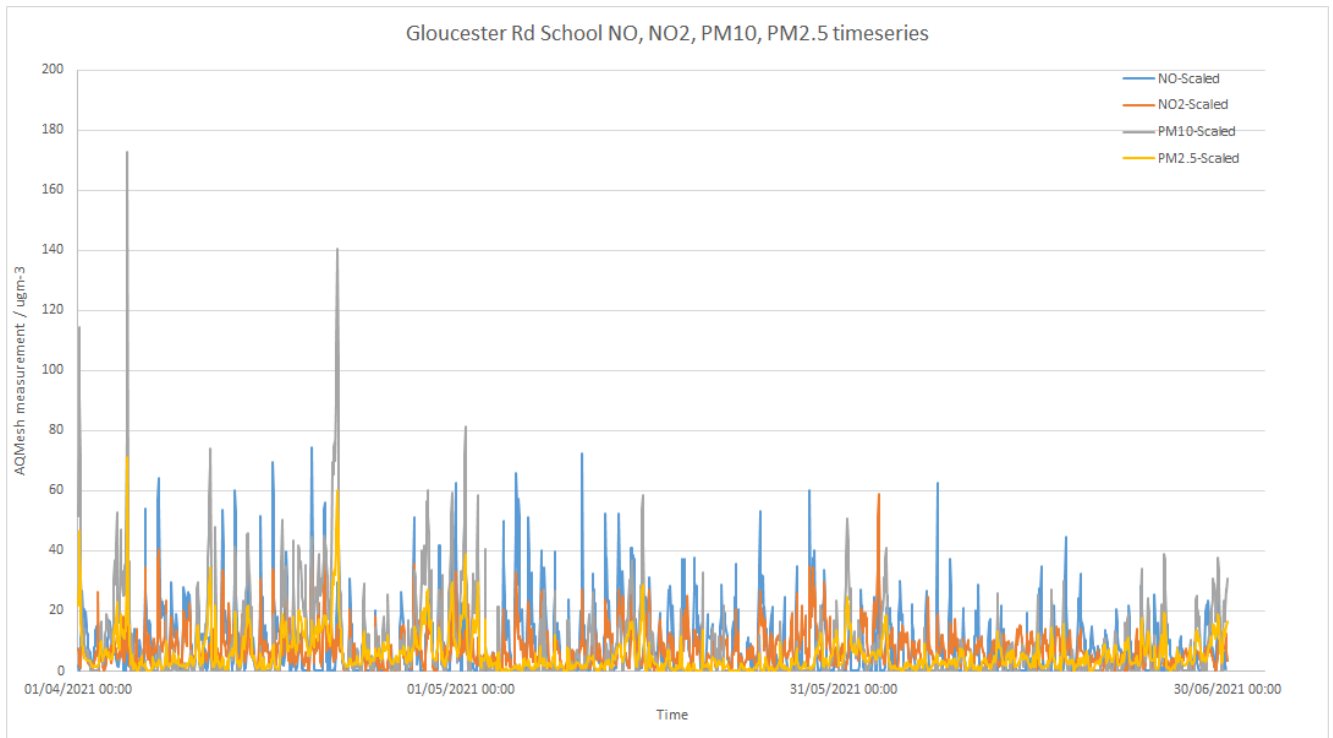
<b>PM<sub>2.5</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	24.56	15.85	22.25	µg m <sup>-3</sup>
<b>Min</b>	4.58	2.94	3.18	µg m <sup>-3</sup>
<b>Median</b>	9.24	4.74	6.38	µg m <sup>-3</sup>
<b>Monthly mean</b>	10.57	6.23	7.26	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

<b>Exceedance count</b>	<b>April exceedance count</b>	<b>May exceedance count</b>	<b>June exceedance count</b>	<b>Quarterly exceedance count</b>	<b>UK AQ Objective</b>
<b>NO2 hourly mean</b>	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
<b>PM10 daily mean</b>	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	22.10	15.57	18.83	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	25.29	13.72	19.50	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	13.11	7.99	10.55	No	Annual mean limit 25 µg m <sup>-3</sup>

## Gloucester Rd school AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	79.10%	77.05%	60.07%	None
<b>Max</b>	123.40	157.90	189.40	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	7.70	5.90	2.30	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	12.38	12.33	7.49	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation Less Than Concentration Limit	

(Min, Max & Median based on 15 minute data)



<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	94.86%	98.79%	95.28%	None
<b>Max</b>	82.00	66.50	112.60	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	11.30	11.60	10.75	µg m <sup>-3</sup>
<b>Monthly mean</b>	14.74	14.88	12.01	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	90.00%	48.39%	66.67%	None
<b>Max</b>	45.92	26.46	36.69	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	8.20	0.00	2.57	µg m <sup>-3</sup>
<b>Monthly mean</b>	13.44	4.14	4.95	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on daily data)

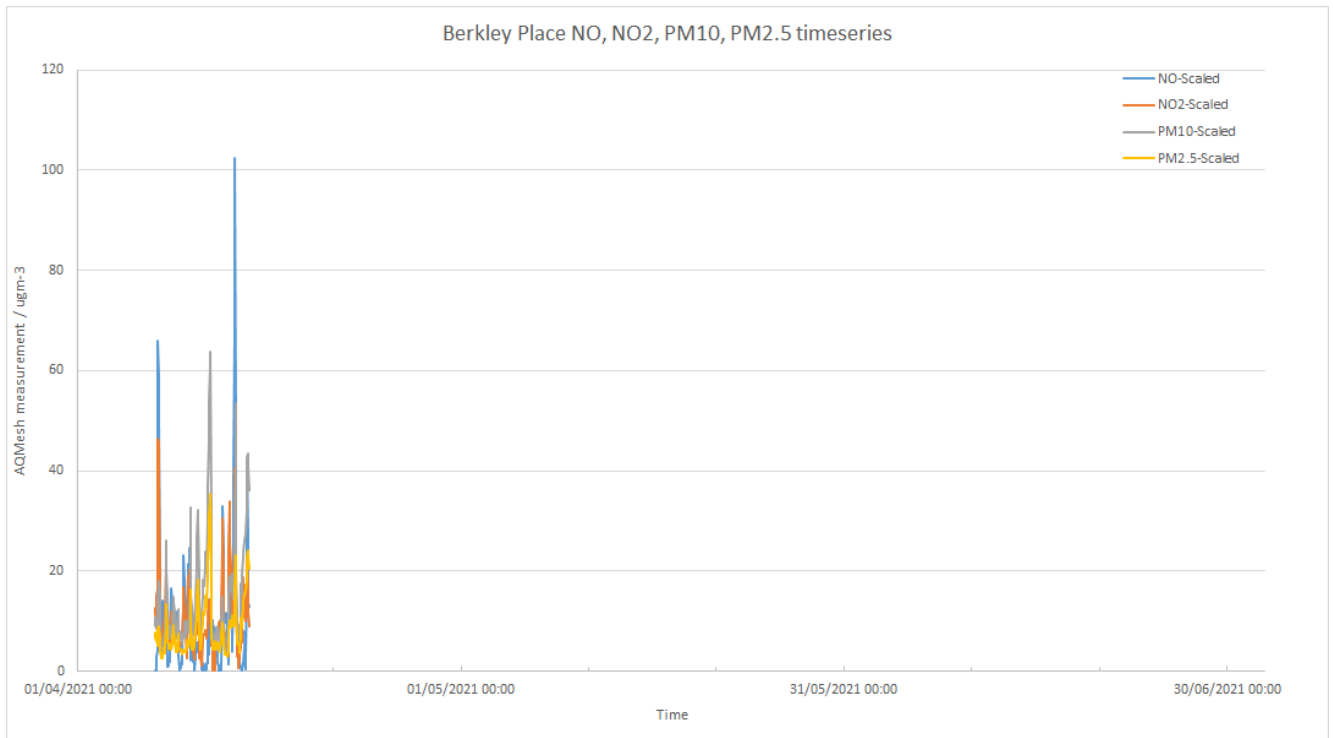
PM <sub>2.5</sub> valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	100.00%	100.00%	100.00%	None
Max	21.33	15.42	18.63	µg m <sup>-3</sup>
Min	1.38	0.33	1.02	µg m <sup>-3</sup>
Median	6.52	2.18	4.17	µg m <sup>-3</sup>
Monthly mean	7.93	3.81	4.97	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
NO <sub>2</sub> hourly mean	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
PM <sub>10</sub> daily mean	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	19.36	13.88	16.62	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	22.02	7.51	14.76	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	12.62	5.57	9.10	No	Annual mean limit 25 µg m <sup>-3</sup>

## Berkley Place AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

<b>NO valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	92.98%	None	None	None
<b>Max</b>	163.40	None	None	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	None	None	$\mu\text{g m}^{-3}$
<b>Median</b>	7.75	None	None	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	12.70	None	None	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	None	None	

(Min, Max & Median based on 15 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	99.44%	None	None	None
<b>Max</b>	88.40	None	None	µg m <sup>-3</sup>
<b>Min</b>	0.00	None	None	µg m <sup>-3</sup>
<b>Median</b>	15.30	None	None	µg m <sup>-3</sup>
<b>Monthly mean</b>	19.65	None	None	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	None	None	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	None	None	None
<b>Max</b>	34.45	None	None	µg m <sup>-3</sup>
<b>Min</b>	9.07	None	None	µg m <sup>-3</sup>
<b>Median</b>	13.24	None	None	µg m <sup>-3</sup>
<b>Monthly mean</b>	15.95	None	None	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

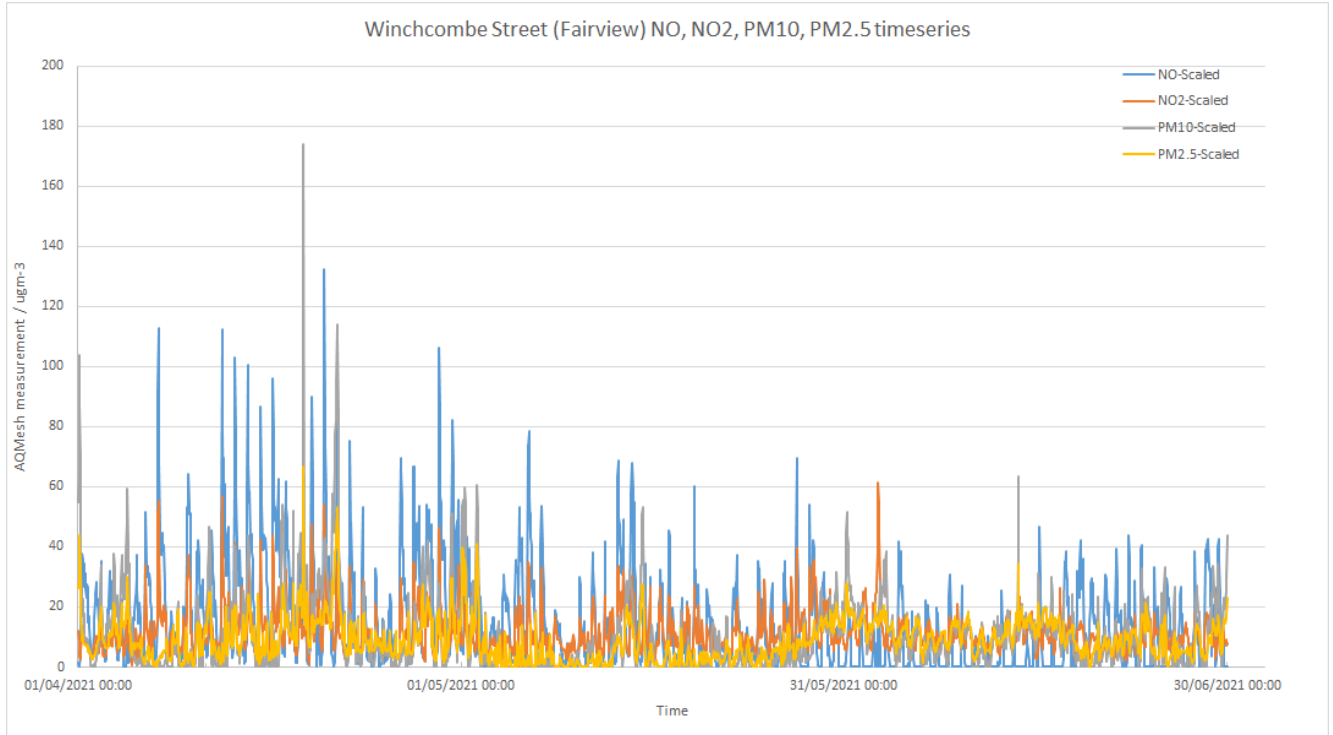
<b>PM<sub>2.5</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	None	None	None
<b>Max</b>	19.49	None	None	µg m <sup>-3</sup>
<b>Min</b>	5.45	None	None	µg m <sup>-3</sup>
<b>Median</b>	7.89	None	None	µg m <sup>-3</sup>
<b>Monthly mean</b>	9.39	None	None	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

<b>Exceedance count</b>	<b>April exceedance count</b>	<b>May exceedance count</b>	<b>June exceedance count</b>	<b>Quarterly exceedance count</b>	<b>UK AQ Objective</b>
<b>NO<sub>2</sub> hourly mean</b>	0	No data	No data	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
<b>PM<sub>10</sub> daily mean</b>	0	No data	No data	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	17.31	19.65	18.48	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	17.19	15.95	16.57	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	12.90	9.39	11.15	No	Annual mean limit 25 µg m <sup>-3</sup>

## Winchcombe Street (Fairview) AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period between.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	97.08%	85.35%	54.51%	None
<b>Max</b>	228.60	138.60	111.60	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	20.35	8.90	1.70	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	28.03	15.78	10.33	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 15 minute data)



<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	99.87%	100.00%	None
<b>Max</b>	108.50	75.60	117.20	µg m <sup>-3</sup>
<b>Min</b>	1.20	0.00	3.10	µg m <sup>-3</sup>
<b>Median</b>	19.25	17.75	18.60	µg m <sup>-3</sup>
<b>Monthly mean</b>	23.83	21.29	20.12	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	None	Truncation	None	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	90.00%	48.39%	100.00%	None
<b>Max</b>	41.40	26.23	34.47	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	1.03	µg m <sup>-3</sup>
<b>Median</b>	8.62	0.00	9.63	µg m <sup>-3</sup>
<b>Monthly mean</b>	13.11	5.37	10.51	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	Truncation	Truncation	None	

(Min, Max & Median based on daily data)

Note: The slightly higher monthly mean PM<sub>2.5</sub> than PM<sub>10</sub> is due to the 51.61% of data truncation in PM<sub>10</sub> daily averaged data.

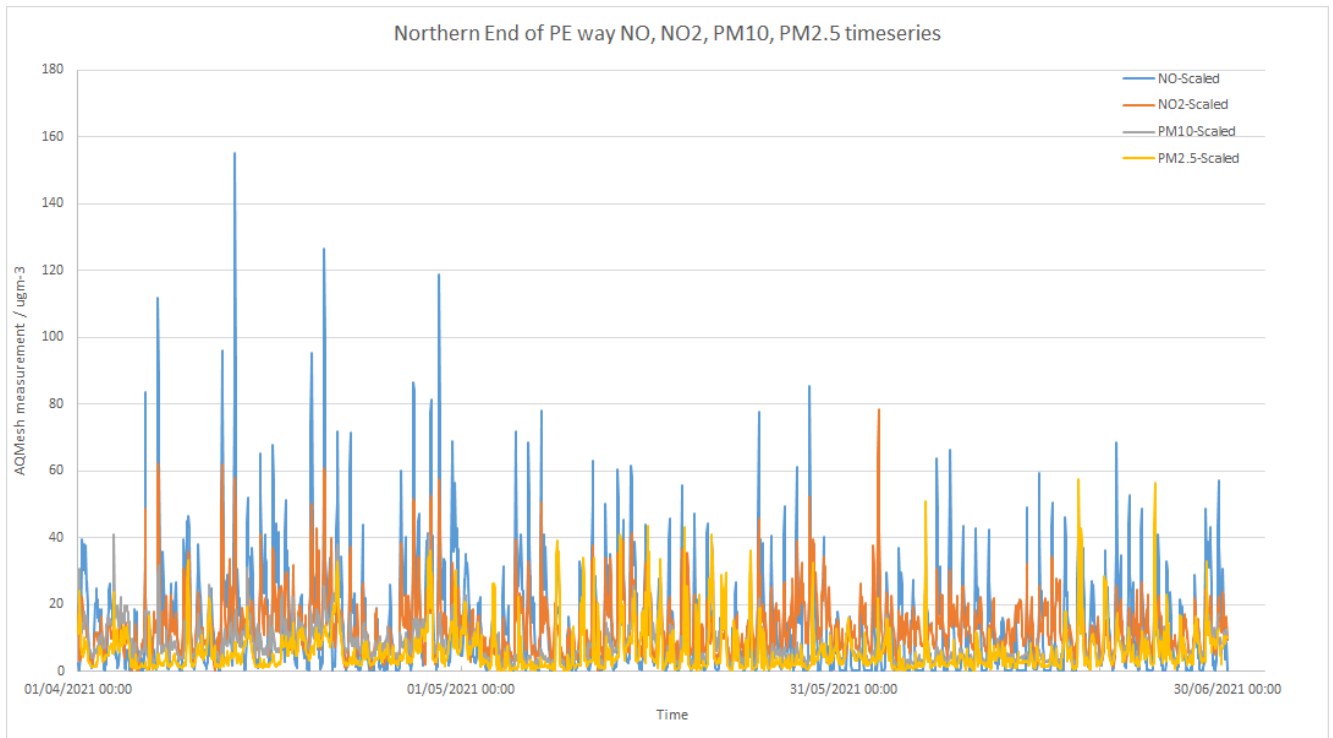
PM <sub>2.5</sub> valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	100.00%	100.00%	100.00%	None
Max	23.61	18.23	18.90	µg m <sup>-3</sup>
Min	3.09	0.03	5.03	µg m <sup>-3</sup>
Median	8.60	3.45	10.88	µg m <sup>-3</sup>
Monthly mean	10.30	5.89	10.45	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
NO <sub>2</sub> hourly mean	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
PM <sub>10</sub> daily mean	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	21.69	21.75	21.72	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	27.96	9.66	18.81	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	15.45	8.88	12.16	No	Annual mean limit 25 µg m <sup>-3</sup>

## Northern End of PE Way AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	93.68%	90.09%	75.38%	None
<b>Max</b>	206.10	131.20	106.10	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	15.50	10.90	7.20	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	22.16	16.82	13.94	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 15 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	99.17%	99.87%	100.00%	None
<b>Max</b>	118.80	99.80	149.70	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	2.10	µg m <sup>-3</sup>
<b>Median</b>	22.65	20.50	22.20	µg m <sup>-3</sup>
<b>Monthly mean</b>	27.17	24.64	23.87	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	None	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	100.00%	93.33%	None
<b>Max</b>	18.11	15.20	15.87	µg m <sup>-3</sup>
<b>Min</b>	5.50	2.70	2.78	µg m <sup>-3</sup>
<b>Median</b>	9.80	7.53	6.35	µg m <sup>-3</sup>
<b>Monthly mean</b>	10.61	7.80	6.79	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	None	Deliquescence	

(Min, Max & Median based on daily data)

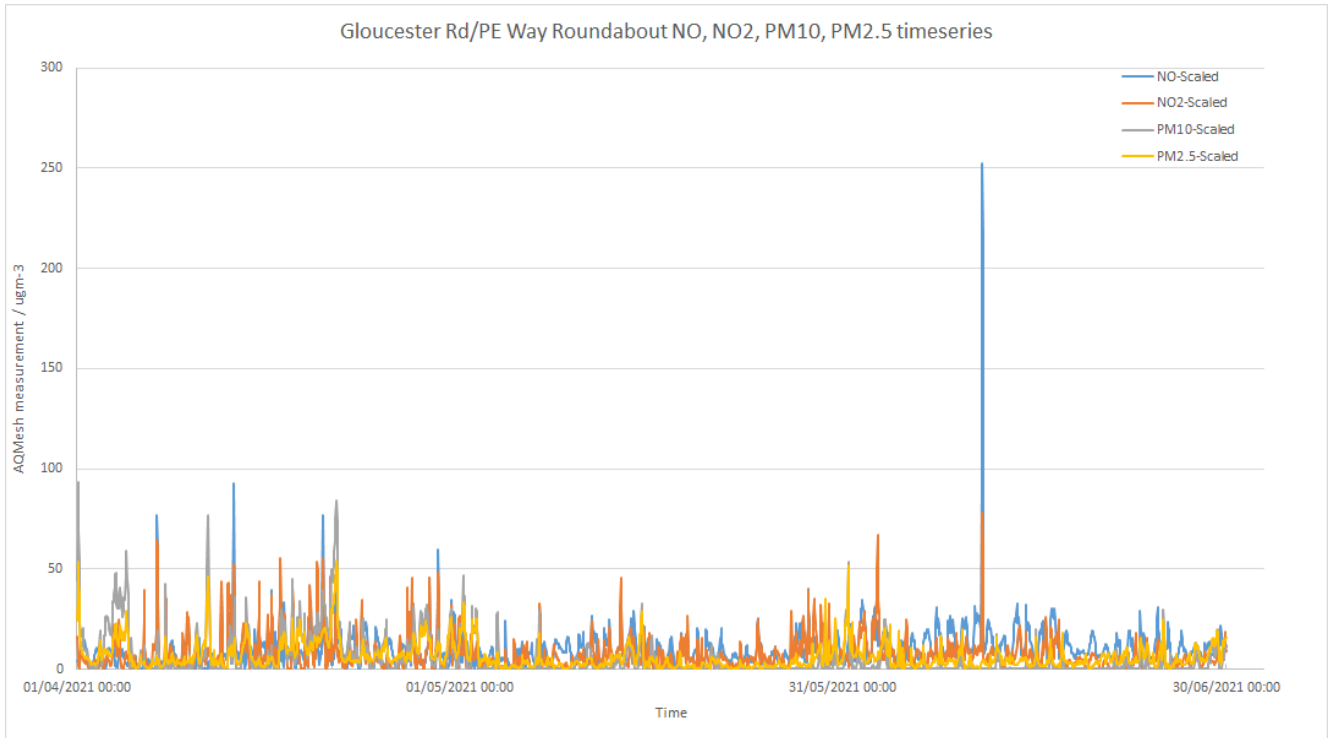
PM <sub>2.5</sub> valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	100.00%	100.00%	93.33%	None
Max	14.44	14.02	14.32	µg m <sup>-3</sup>
Min	1.86	1.40	1.51	µg m <sup>-3</sup>
Median	4.94	5.67	5.18	µg m <sup>-3</sup>
Monthly mean	6.13	6.15	5.78	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	Deliquescence	

(Min, Max & Median based on daily data)

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
NO <sub>2</sub> hourly mean	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
PM <sub>10</sub> daily mean	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	27.41	25.23	26.32	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	11.52	8.40	9.96	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	7.00	6.02	6.51	No	Annual mean limit 25 µg m <sup>-3</sup>

## Gloucester Rd PE Way Roundabout AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	91.56%	98.42%	100.00%	None
<b>Max</b>	155.20	99.80	348.80	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.60	$\mu\text{g m}^{-3}$
<b>Median</b>	8.10	8.20	12.90	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	11.31	10.34	16.17	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	None	

(Min, Max & Median based on 15 minute data)



<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	86.11%	90.73%	93.47%	None
<b>Max</b>	123.30	86.80	149.00	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	10.10	9.10	10.30	µg m <sup>-3</sup>
<b>Monthly mean</b>	16.86	12.18	13.42	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	90.00%	32.26%	26.67%	None
<b>Max</b>	36.88	15.31	18.21	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	7.73	0.00	0.00	µg m <sup>-3</sup>
<b>Monthly mean</b>	10.75	1.66	1.20	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on daily data)

Note: The higher monthly mean PM2.5 than PM10 is due to more than 70% of PM10 data truncation in PM10 daily averaged data.

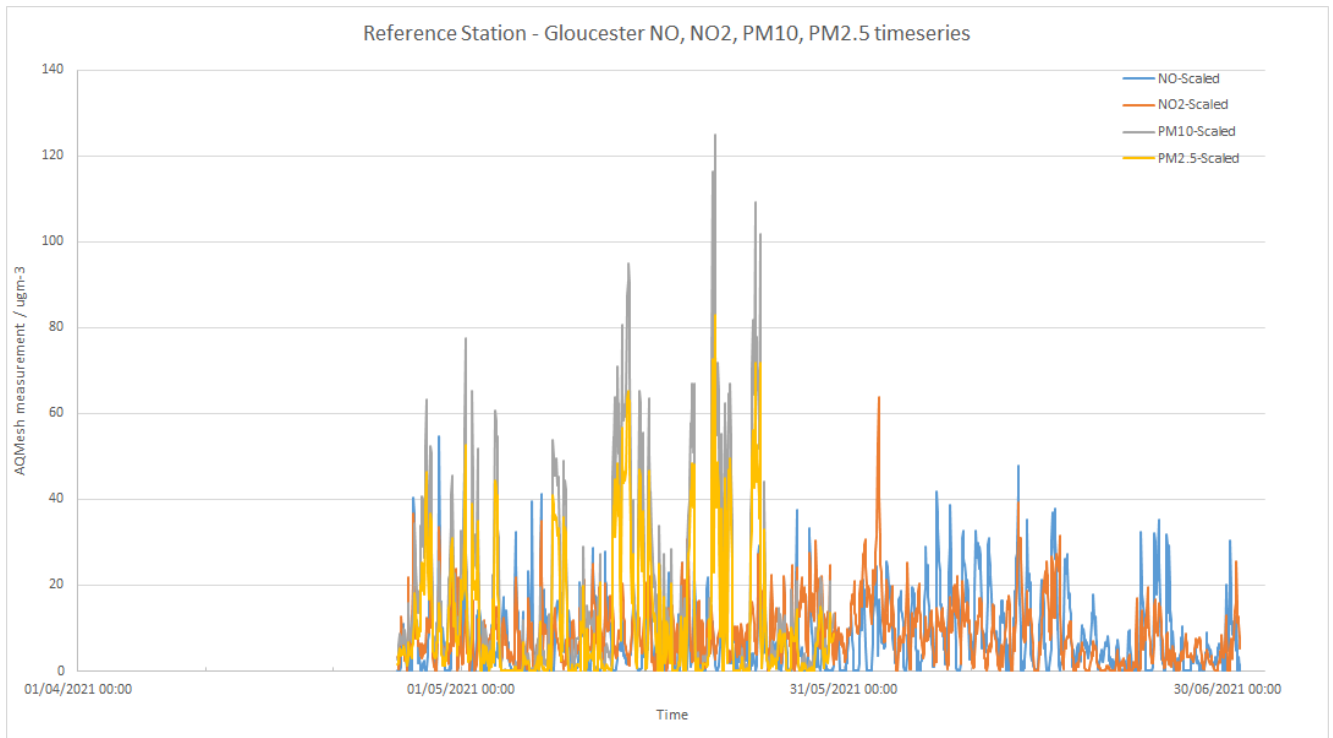
<b>PM<sub>2.5</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	21.89	16.34	18.45	µg m <sup>-3</sup>
<b>Min</b>	2.26	0.76	1.82	µg m <sup>-3</sup>
<b>Median</b>	7.06	2.60	4.83	µg m <sup>-3</sup>
<b>Monthly mean</b>	9.10	4.44	5.53	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

<b>Exceedance count</b>	<b>April exceedance count</b>	<b>May exceedance count</b>	<b>June exceedance count</b>	<b>Quarterly exceedance count</b>	<b>UK AQ Objective</b>
<b>NO<sub>2</sub> hourly mean</b>	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
<b>PM<sub>10</sub> daily mean</b>	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	20.24	14.15	17.20	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	17.35	4.54	10.95	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	9.17	6.36	7.77	No	Annual mean limit 25 µg m <sup>-3</sup>

## Reference Station - Gloucester Rd - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

<b>NO valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	72.92%	79.57%	83.85%	None
<b>Max</b>	76.00	158.10	66.40	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	5.40	5.80	7.15	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	10.66	8.43	11.46	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 1 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	96.67%	98.79%	90.28%	None
<b>Max</b>	69.90	66.70	121.70	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	12.05	16.00	12.75	µg m <sup>-3</sup>
<b>Monthly mean</b>	16.55	17.52	16.12	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	96.67%	None	None
<b>Max</b>	31.45	55.12	None	µg m <sup>-3</sup>
<b>Min</b>	7.78	0.00	None	µg m <sup>-3</sup>
<b>Median</b>	20.24	11.55	None	µg m <sup>-3</sup>
<b>Monthly mean</b>	17.96	17.15	None	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	Truncation	None	

(Min, Max & Median based on daily data)

Note: There is no PM data for AQMesh 780150 located at Gloucester road reference station since 31/05/2021.

PM <sub>2.5</sub> valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	100.00%	96.67%	None	None
Max	21.15	39.35	None	µg m <sup>-3</sup>
Min	4.03	0.00	None	µg m <sup>-3</sup>
Median	11.42	8.03	None	µg m <sup>-3</sup>
Monthly mean	11.38	11.56	None	µg m <sup>-3</sup>
PM <sub>2.5</sub> invalid data status flag				
	None	Truncation	None	

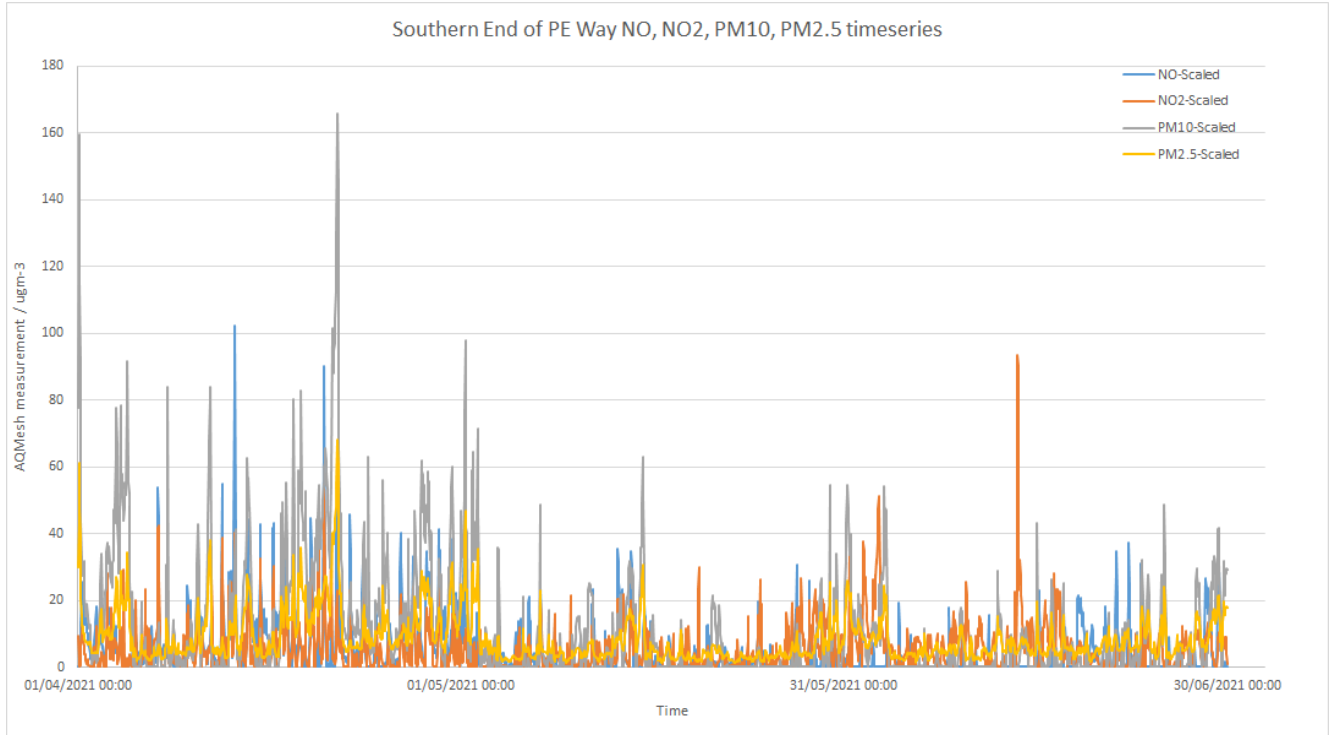
(Min, Max & Median based on daily data)

Note: There is no PM data for AQMesh 780150 located at Gloucester road reference station since 31/05/2021.

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
NO <sub>2</sub> hourly mean	0	0	No data	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
PM <sub>10</sub> daily mean	0	1	No data	1	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	22.91	16.73	19.82	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	16.20	17.56	16.88	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	12.84	11.47	12.16	No	Annual mean limit 25 µg m <sup>-3</sup>

## Southern End of PE Way AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	85.56%	53.73%	28.58%	None
Max	175.70	62.30	65.60	$\mu\text{g m}^{-3}$
Min	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
Median	7.20	0.50	0.00	$\mu\text{g m}^{-3}$
Monthly mean	11.86	4.07	3.34	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 15 minute data)



<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	81.94%	74.33%	81.39%	None
<b>Max</b>	102.00	68.30	178.50	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	7.10	3.80	8.10	µg m <sup>-3</sup>
<b>Monthly mean</b>	11.77	7.84	11.95	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	96.67%	51.61%	73.33%	None
<b>Max</b>	65.02	35.43	42.89	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	15.75	0.20	3.06	µg m <sup>-3</sup>
<b>Monthly mean</b>	21.62	5.83	6.11	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on daily data)

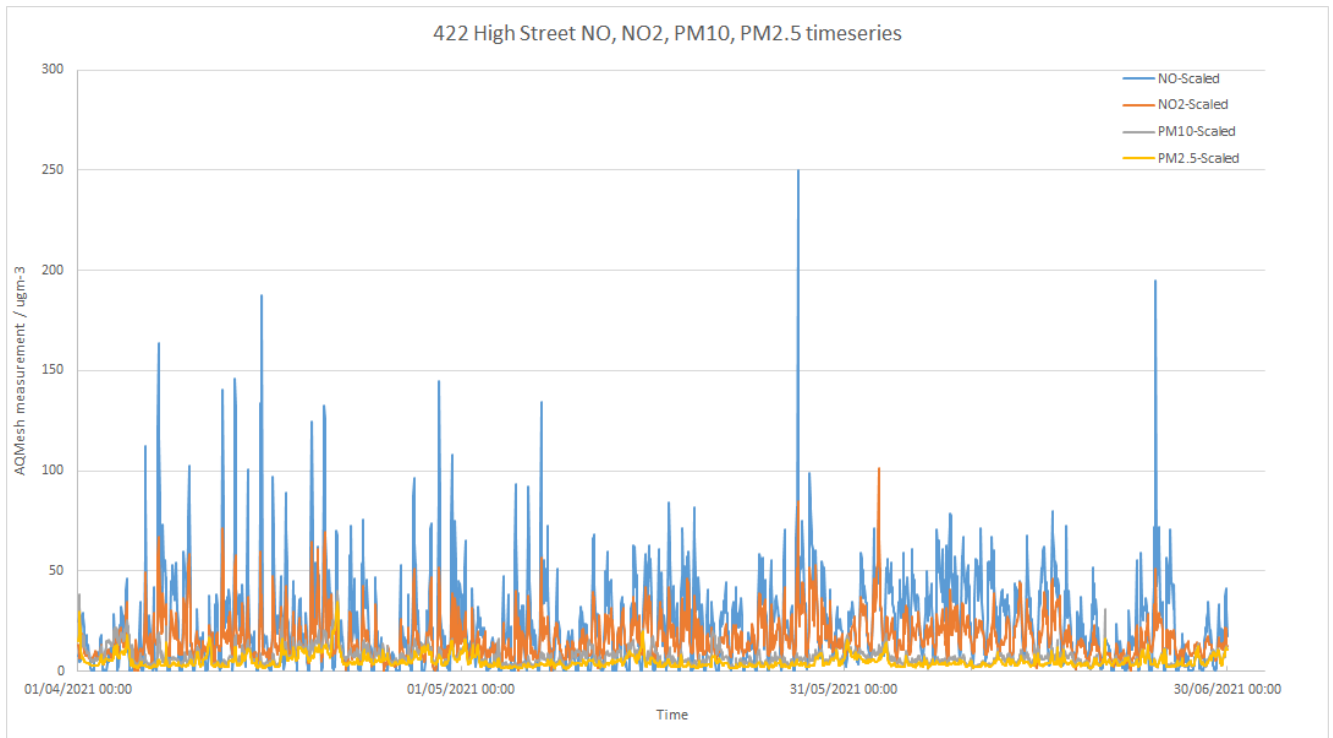
<b>PM<sub>2.5</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100.00%	100.00%	100.00%	None
<b>Max</b>	28.35	20.61	22.45	µg m <sup>-3</sup>
<b>Min</b>	3.46	2.25	2.84	µg m <sup>-3</sup>
<b>Median</b>	10.16	4.23	6.52	µg m <sup>-3</sup>
<b>Monthly mean</b>	11.98	6.21	7.39	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

<b>Exceedance count</b>	<b>April exceedance count</b>	<b>May exceedance count</b>	<b>June exceedance count</b>	<b>Quarterly exceedance count</b>	<b>UK AQ Objective</b>
<b>NO2 hourly mean</b>	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
<b>PM10 daily mean</b>	3	0	0	3	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	29.26	10.52	19.89	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	39.48	11.19	25.34	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	16.98	8.53	12.75	No	Annual mean limit 25 µg m <sup>-3</sup>

## 422 High Street AQMesh - Data Summary



(Graph shows hourly averaged data)

Note: The following tables exclude data measured during the co-location period.

NO valid data	April Scaled data	May Scaled data	June Scaled data	Unit
<b>Valid data rate</b>	87.33%	88.21%	94.83%	None
<b>Max</b>	523.10	821.90	740.50	$\mu\text{g m}^{-3}$
<b>Min</b>	0.00	0.00	0.00	$\mu\text{g m}^{-3}$
<b>Median</b>	17.80	23.55	28.40	$\mu\text{g m}^{-3}$
<b>Monthly mean</b>	28.87	29.21	32.36	$\mu\text{g m}^{-3}$
<b>NO invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on 15 minute data)

<b>NO<sub>2</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	99.31%	99.87%	99.86%	None
<b>Max</b>	136.10	162.40	192.80	µg m <sup>-3</sup>
<b>Min</b>	0.00	0.00	0.00	µg m <sup>-3</sup>
<b>Median</b>	22.25	27.05	27.95	µg m <sup>-3</sup>
<b>Monthly mean</b>	29.01	32.23	31.89	µg m <sup>-3</sup>
<b>NO<sub>2</sub> invalid data status flag</b>				
	Truncation	Truncation	Truncation	

(Min, Max & Median based on hourly data)

<b>PM<sub>10</sub> valid data</b>	<b>April Scaled data</b>	<b>May Scaled data</b>	<b>June Scaled data</b>	<b>Unit</b>
<b>Valid data rate</b>	100%	100%	100.00%	None
<b>Max</b>	18.38	11.48	13.39	µg m <sup>-3</sup>
<b>Min</b>	4.13	3.20	3.19	µg m <sup>-3</sup>
<b>Median</b>	8.25	6.22	5.86	µg m <sup>-3</sup>
<b>Monthly mean</b>	9.11	6.49	6.15	µg m <sup>-3</sup>
<b>PM<sub>10</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

PM <sub>2.5</sub> valid data	April Scaled data	May Scaled data	June Scaled data	Unit
Valid data rate	100%	100%	100.00%	None
Max	13.95	9.59	12.45	µg m <sup>-3</sup>
Min	2.40	1.93	2.66	µg m <sup>-3</sup>
Median	5.40	3.55	4.17	µg m <sup>-3</sup>
Monthly mean	6.12	4.15	4.69	µg m <sup>-3</sup>
<b>PM<sub>2.5</sub> invalid data status flag</b>				
	None	None	None	

(Min, Max & Median based on daily data)

Exceedance count	April exceedance count	May exceedance count	June exceedance count	Quarterly exceedance count	UK AQ Objective
NO <sub>2</sub> hourly mean	0	0	0	0	Hourly mean, 200 µg m <sup>-3</sup> not to be exceeded more than 18 times a year
PM <sub>10</sub> daily mean	0	0	0	0	24 hour mean, 50 µg m <sup>-3</sup> not to be exceeded more than 35 times a year

<b>Annual exceedance</b>	<b>Q1 up to date average</b>	<b>Q2 up to date average</b>	<b>Year to date average</b>	<b>Exceeded annual limit?</b>	<b>UK AQ Objective</b>
<b>NO2 annual mean (up to date)</b>	33.96	31.04	32.50	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM10 annual mean (up to date)</b>	17.08	7.25	12.16	No	Annual mean limit 40 µg m <sup>-3</sup>
<b>PM2.5 annual mean (up to date)</b>	9.85	4.99	7.42	No	Annual mean limit 25 µg m <sup>-3</sup>

### AQMesh Location Changes

Below is a list of all AQMesh devices with the physical location for each device before and after their co-location study. This report includes one contiguous data set for each Cheltenham site location.

<b>Location</b>	<b>AQMesh device Unique ID</b>	<b>Q2 Running time</b>
College Rd	788150	07/04/2021 - 30/06/2021
Gloucester Rd School	1931150	01/04/2021 - 30/06/2021
Berkley Place	807150	07/04/2021 - 30/06/2021
Winchcombe Street (Fairview)	872150	01/04/2021 - 30/06/2021
Northern End of PE Way	1373150	01/04/2021 - 30/06/2021
Gloucester Rd / PE Way Roundabout	845150	01/04/2021 - 30/06/2021
Reference Station - Gloucester Rd	780150	26/04/2021 - 30/06/2021
Southern End of PE Way	2102150	01/04/2021 - 30/06/2021
422 High Street	796150	01/04/2021 - 30/06/2021