

# Air Quality Report

Produced by AQDM on behalf of Winchester

## WINCHESTER TWYFORD AQMESH January to March 2022

### Site Environment and Description

Village Hall, High St, Twyford AQMesh

### Statistical Summary Report

This report shows the progress of the LAQM statistics during 2022. All data are still provisional and are subject to further control since the next service may reveal a problem.

### Daily Air Quality Index (DAQI)

The table below shows the duration within the bands of the Daily Air Quality Index (DAQI). The DAQI was introduced by Defra in January 2012 and revised April 2013.

DAQI Pollutant	Moderate	High	Very High
Nitrogen Dioxide	0 hours	0	0
PM <sub>10</sub> Particulate Matter	1 day	0	0
PM <sub>2.5</sub> Particulate Matter	1 day	0	0
Ozone	- hours	-	-

Gravimetric PM<sub>10</sub> was Moderate on 16<sup>th</sup> Jan with a daily mean reaching 63  $\mu\text{g m}^{-3}$ .  
Gravimetric PM<sub>2.5</sub> was Moderate on 25<sup>th</sup> Jan with a daily mean reaching 40  $\mu\text{g m}^{-3}$ .

### Air Quality Exceedences of the AQS Objectives

#### NO<sub>2</sub> - data capture was 98.0 %

The annual mean is currently 27  $\mu\text{g m}^{-3}$  which does not exceed the 40  $\mu\text{g m}^{-3}$  Objective.

The maximum hourly mean was 134  $\mu\text{g m}^{-3}$  so there were no exceedences of the NO<sub>2</sub> hourly limit of 200  $\mu\text{g m}^{-3}$ . There is an annual allowance of 18 hours so the Objective was not exceeded.

#### Gravimetric PM<sub>10</sub> - data capture was 99.7 %

The annual mean is currently 15  $\mu\text{g m}^{-3}$  which does not exceed the 40  $\mu\text{g m}^{-3}$  Objective.

The maximum daily mean was 63  $\mu\text{g m}^{-3}$  so there was 1 exceedence of the PM<sub>10</sub> daily limit of 50  $\mu\text{g m}^{-3}$ . There is an annual allowance of 35 days so the Objective was not exceeded.

#### Gravimetric PM<sub>2.5</sub> - data capture was 99.7 %

The annual mean is currently 11  $\mu\text{g m}^{-3}$  which does not exceed the 25  $\mu\text{g m}^{-3}$  Objective. Note that the PM<sub>2.5</sub> standard is not set in the regulations.

There should be a 15% cut in urban background exposure (annual mean) for all Local Authorities from 2010 to 2020.

#### O<sub>3</sub> - data capture was 0.0 %

The maximum running 8-hour mean was - so there were -99 days with exceedences of the Ozone limit of 100  $\mu\text{g m}^{-3}$ . There is an annual allowance of 10 days so the Objective was not exceeded. Note that the Ozone standard is not set in the regulations.

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## Air Quality Statistics

Pollutant	NO <sub>2</sub>	NO	PM <sub>10</sub>	PM <sub>2.5</sub>	PM <sub>1</sub>	O <sub>3</sub>
Number Very High #	0	-	0	0	-	-
Number High #	0	-	0	0	-	-
Number Moderate #	0	-	1	1	-	-
Number Low #	2116	-	89	89	-	-
Maximum 15-min mean	142 µg m <sup>-3</sup>	256 µg m <sup>-3</sup>	-	-	62 µg m <sup>-3</sup>	-
Maximum hourly mean	134 µg m <sup>-3</sup>	208 µg m <sup>-3</sup>	429 µg m <sup>-3</sup>	111 µg m <sup>-3</sup>	47 µg m <sup>-3</sup>	-
Maximum running 8-hr mean	75 µg m <sup>-3</sup>	104 µg m <sup>-3</sup>	156 µg m <sup>-3</sup>	64 µg m <sup>-3</sup>	43 µg m <sup>-3</sup>	-
Maximum running 24-hr mean	49 µg m <sup>-3</sup>	47 µg m <sup>-3</sup>	74 µg m <sup>-3</sup>	46 µg m <sup>-3</sup>	34 µg m <sup>-3</sup>	-
Maximum daily mean	49 µg m <sup>-3</sup>	47 µg m <sup>-3</sup>	63 µg m <sup>-3</sup>	40 µg m <sup>-3</sup>	31 µg m <sup>-3</sup>	-
Average	27 µg m <sup>-3</sup>	20 µg m <sup>-3</sup>	15 µg m <sup>-3</sup>	11 µg m <sup>-3</sup>	8 µg m <sup>-3</sup>	-
Data capture	98.0 %	98.0 %	99.7 %	99.7 %	99.7 %	0.0 %

# Daily Air Quality Index (DAQI) as defined by COMEAP January 2012 and revised April 2013

All measurements made by an AQMesh with Gravimetric Factors = 1

Mass units for the gases are at 20°C and 1013mb

## Air Quality Exceedences

Pollutant	Air Quality (England) Regulations 2000 & (Amendment) Regulations 2002	Max Conc	Number	Days	Allowed	Exceeded
Nitrogen Dioxide	Annual mean > 40 µg m <sup>-3</sup>	27 µg m <sup>-3</sup>	-	-	-	No
Nitrogen Dioxide	Hourly mean > 200 µg m <sup>-3</sup>	134 µg m <sup>-3</sup>	0	0	18 hours	No
PM <sub>10</sub> Particulate Matter (Gravimetric)	Annual mean > 40 µg m <sup>-3</sup>	15 µg m <sup>-3</sup>	-	-	-	No
PM <sub>10</sub> Particulate Matter (Gravimetric)	Daily mean > 50 µg m <sup>-3</sup>	63 µg m <sup>-3</sup>	1	1	35 days	No
PM <sub>2.5</sub> Particulate Matter (Gravimetric) *	Annual mean > 25 µg m <sup>-3</sup>	11 µg m <sup>-3</sup>	-	-	-	No
Ozone *	Daily max run 8hr mean > 100 µg m <sup>-3</sup>	-	-	-	10 days	No

\* Not set in regulations

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## Monthly Data Captures %

Pollutant	Jan	Feb	Mar
Nitrogen Dioxide	95.0	99.9	99.2
Grav PM <sub>10</sub>	100.0	99.9	99.2
Grav PM <sub>2.5</sub>	100.0	99.9	99.2
PM <sub>1</sub>	100.0	99.9	99.2
Ozone	0.0	0.0	0.0

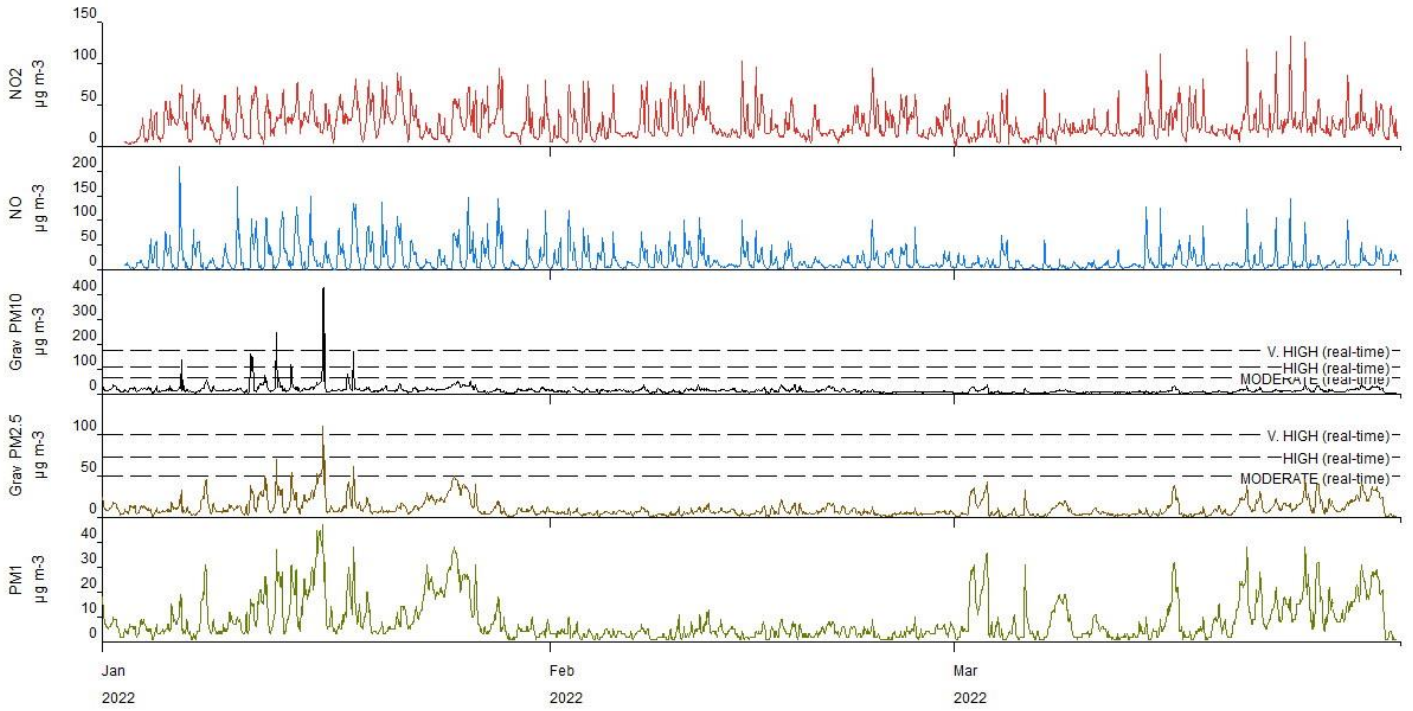
## Monthly Means

Pollutant	Jan	Feb	Mar
Nitrogen Dioxide $\mu\text{g m}^{-3}$	31	26	25
Grav PM <sub>10</sub> $\mu\text{g m}^{-3}$	22	12	10
Grav PM <sub>2.5</sub> $\mu\text{g m}^{-3}$	15	6	11
PM <sub>1</sub> $\mu\text{g m}^{-3}$	11	4	10
Ozone $\mu\text{g m}^{-3}$	-	-	-

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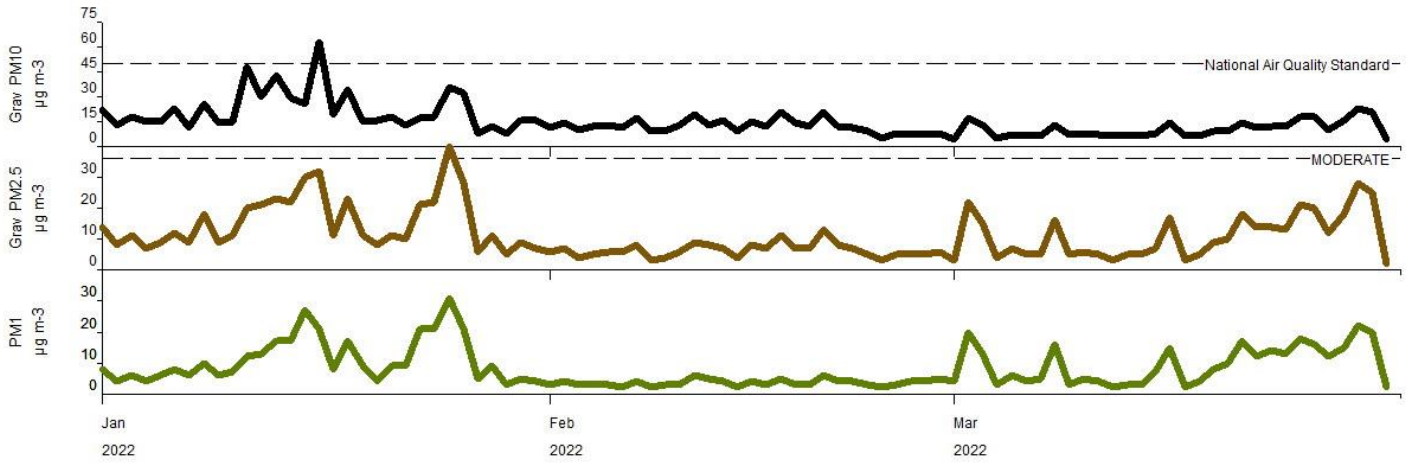
## Hourly Means



# Air Quality Report

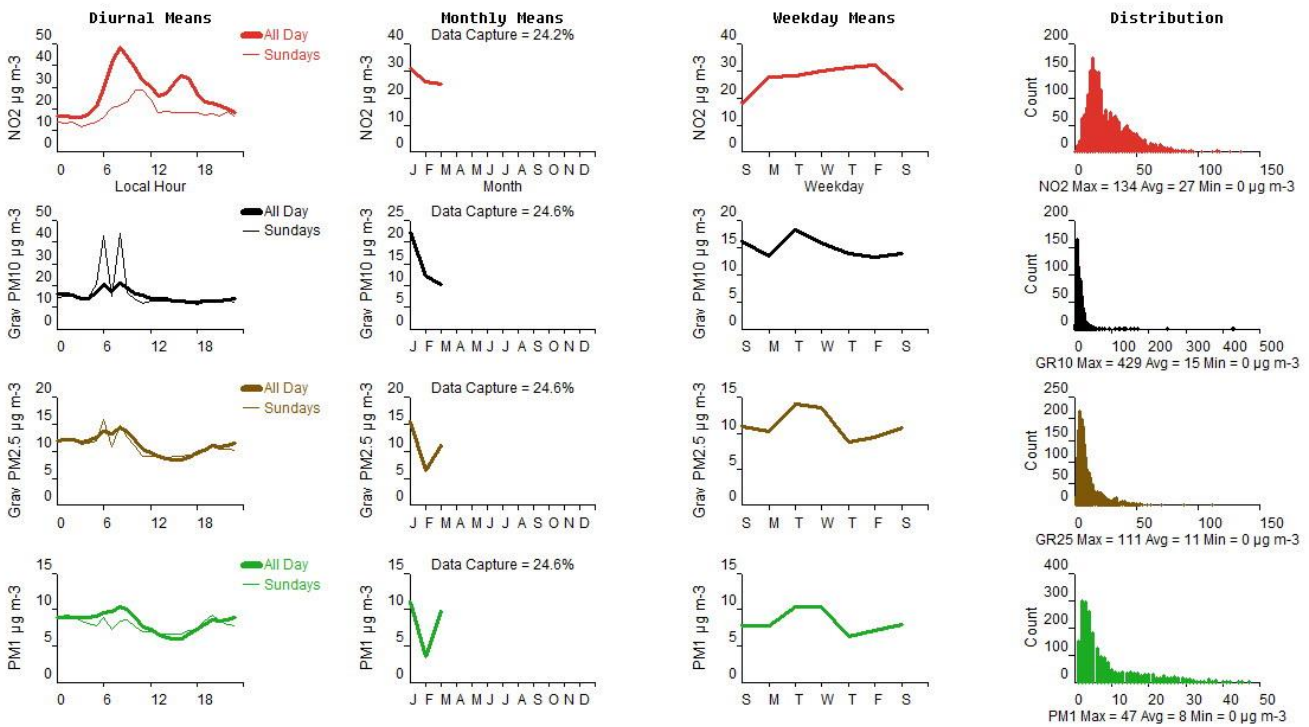
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## Daily Means



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