

# Air Quality Report

Produced by AQDM on behalf of Herefordshire

## HEREFORD VICTORIA STREET 2019

These data have been fully ratified by AQDM to the LAQM (TG16) standards

### Site Environment and Description

ROADSIDE: Corner of Victoria Street and King Street

### Statistical Summary Report

This 2019 report contains all the statistics required for the LAQM reporting.

#### First table – Air Quality Statistics

The gravimetric PM<sub>10</sub> (BAM x 0.833) is shown in the 2<sup>nd</sup> column while the uncorrected BAM PM<sub>10</sub> is in the 3<sup>rd</sup>.

The top four lines show the duration within the bands of the Daily Air Quality Index (DAQI). This was introduced by Defra on January 2012 and revised April 2013. The number of occasions within each band is summarised as follows.

DAQI Pollutant	Moderate	High	Very High
Gravimetric PM <sub>10</sub>	7 days	0	0
NO <sub>2</sub>	1 hour	0	0

Gravimetric PM<sub>10</sub> was Moderate on 4<sup>th</sup> Jan, 15<sup>th</sup> 23<sup>rd</sup> 25<sup>th</sup> 26<sup>th</sup> 27<sup>th</sup> Feb, 8<sup>th</sup> Apr with a daily mean reaching 68 µg m<sup>-3</sup>.

Nitrogen Dioxide was Moderate on 16<sup>th</sup> Dec with an hourly mean reaching 212 µg m<sup>-3</sup>.

#### Data Captures

The annual data captures are shown on the bottom line.

These were above the 85% target for NO<sub>2</sub> and below for PM<sub>10</sub>.

High percentiles are included where the annual data capture was less than 85%.

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## Second table – Air Quality Exceedences

### *Gravimetric PM<sub>10</sub> – annual data capture was 84.1 %*

The maximum daily mean was  $68 \mu\text{g m}^{-3}$  so the daily mean limit value of  $50 \mu\text{g m}^{-3}$  was exceeded on 7 days. The annual allowance is 35 days so this Objective was not exceeded.

The annual mean was  $21 \mu\text{g m}^{-3}$  which did not exceed the  $40 \mu\text{g m}^{-3}$  Objective.

### *NO<sub>2</sub> – annual data capture was 95.5 %*

The annual mean was  $38 \mu\text{g m}^{-3}$  which did not exceed the  $40 \mu\text{g m}^{-3}$  Objective.

The maximum hourly mean was  $212 \mu\text{g m}^{-3}$  so there 1 exceedence of the NO<sub>2</sub> hourly limit of  $200 \mu\text{g m}^{-3}$ . There is an annual allowance of 18 hours so this Objective was not exceeded.

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### Air Quality Statistics

Pollutant	PM <sub>10</sub> <sup>+</sup>	PM <sub>10</sub> <sup>*</sup>	NO <sub>2</sub>	NO	NO <sub>x</sub>
Number Very High #	0	-	0	-	-
Number High #	0	-	0	-	-
Number Moderate #	7	-	1	-	-
Number Low #	285	-	8361	-	-
Maximum 15-min mean	-	-	256 µg m <sup>-3</sup>	609 µg m <sup>-3</sup>	1081 µg m <sup>-3</sup>
Maximum hourly mean	161 µg m <sup>-3</sup>	193 µg m <sup>-3</sup>	212 µg m <sup>-3</sup>	527 µg m <sup>-3</sup>	935 µg m <sup>-3</sup>
Maximum running 8-hr mean	95 µg m <sup>-3</sup>	114 µg m <sup>-3</sup>	141 µg m <sup>-3</sup>	311 µg m <sup>-3</sup>	555 µg m <sup>-3</sup>
Maximum running 24-hr mean	74 µg m <sup>-3</sup>	88 µg m <sup>-3</sup>	93 µg m <sup>-3</sup>	242 µg m <sup>-3</sup>	429 µg m <sup>-3</sup>
Maximum daily mean	68 µg m <sup>-3</sup>	82 µg m <sup>-3</sup>	91 µg m <sup>-3</sup>	216 µg m <sup>-3</sup>	389 µg m <sup>-3</sup>
90.4 <sup>th</sup> percentile of daily means <sup>†</sup>	32 µg m <sup>-3</sup>	-	-	-	-
90 <sup>th</sup> percentile of daily means <sup>†</sup>	32 µg m <sup>-3</sup>	-	-	-	-
98.1 <sup>st</sup> percentile of daily means <sup>†</sup>	53 µg m <sup>-3</sup>	-	-	-	-
Average	21 µg m <sup>-3</sup>	25 µg m <sup>-3</sup>	38 µg m <sup>-3</sup>	43 µg m <sup>-3</sup>	105 µg m <sup>-3</sup>
Data capture	84.1 %	84.1 %	95.5 %	95.5 %	95.5 %

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

† Percentile required for annual data capture < 85%

\* PM<sub>10</sub> as measured by a BAM using a gravimetric factor of 0.833 for Indicative Gravimetric Equivalent

\* PM<sub>10</sub> as measured by a BAM

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

NO<sub>x</sub> mass units are NO<sub>x</sub> as NO<sub>2</sub> µg m<sup>-3</sup>

### Air Quality Exceedences

Pollutant	Air Quality (England) Regulations 2000 & (Amendment) Regulations 2002	Max Conc	Number	Days	Allowed	Exceeded
PM <sub>10</sub> Particulate Matter (Gravimetric)	Daily mean > 50 µg m <sup>-3</sup>	68 µg m <sup>-3</sup>	7	7	35 days	No
PM <sub>10</sub> Particulate Matter (Gravimetric)	Annual mean > 40 µg m <sup>-3</sup>	21 µg m <sup>-3</sup>	0	-	-	No
Nitrogen Dioxide	Annual mean > 40 µg m <sup>-3</sup>	38 µg m <sup>-3</sup>	0	-	-	No
Nitrogen Dioxide	Hourly mean > 200 µg m <sup>-3</sup>	212 µg m <sup>-3</sup>	1	1	18 hours	No

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### Monthly Data Captures %

Pollutant	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PM <sub>10</sub>	93.4	83.3	99.9	36.8	57.1	93.3	98.9	100.0	95.0	53.6	100.0	96.8
Nitrogen Dioxide	98.4	98.5	98.8	92.9	95.4	98.8	98.4	99.2	98.3	83.3	84.3	99.2

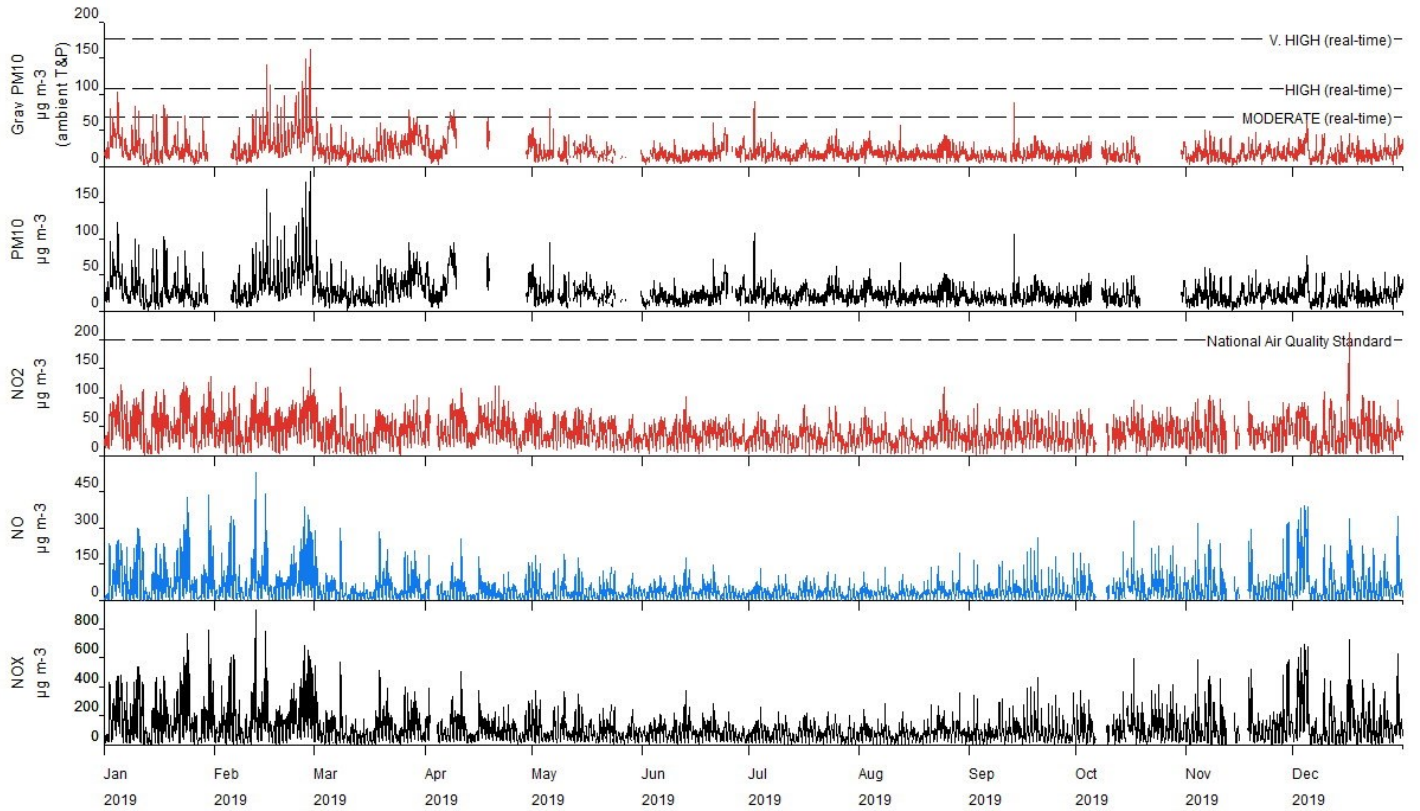
### Monthly Means

Pollutant	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PM <sub>10</sub> $\mu\text{g m}^{-3}$	24	36	24	32	19	17	18	18	16	17	16	18
Nitrogen Dioxide $\mu\text{g m}^{-3}$	50	49	35	45	36	33	30	32	33	38	39	40

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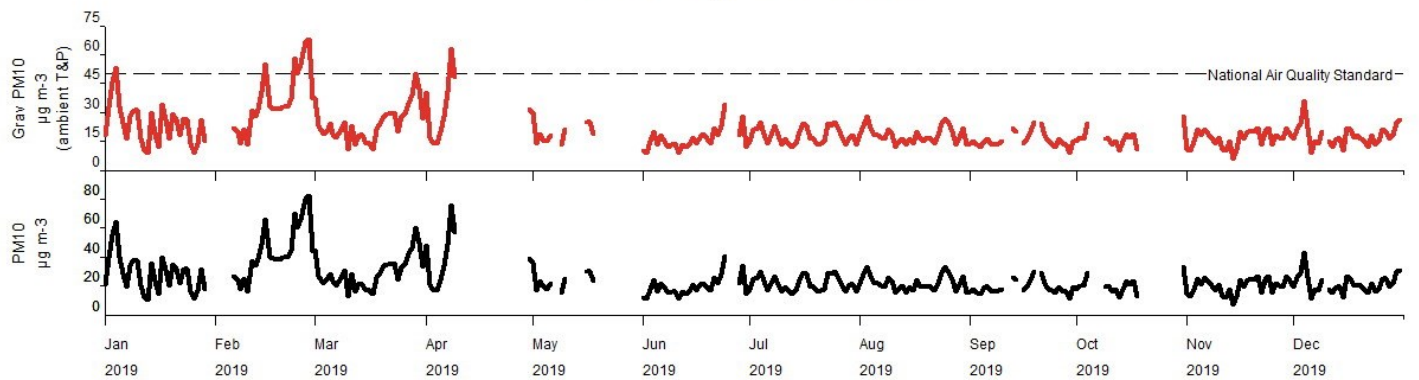
## Hourly Means



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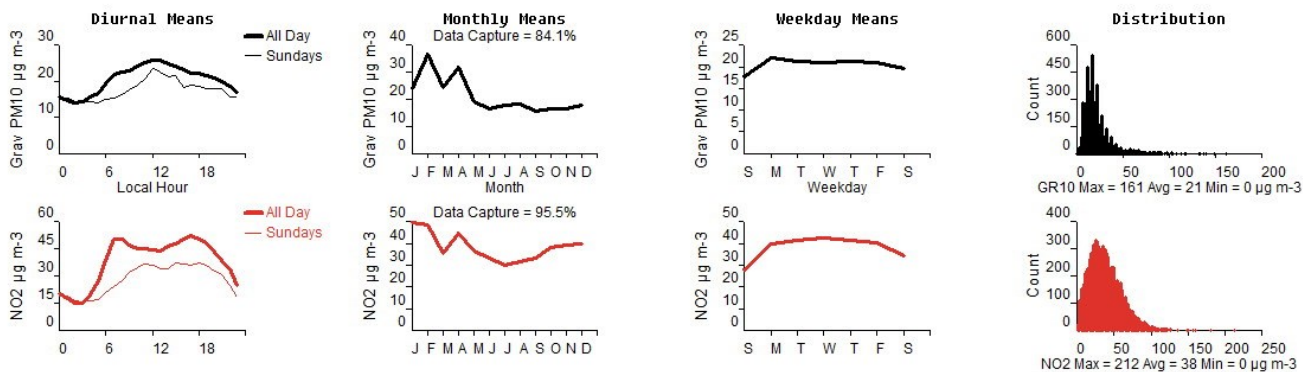
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### Daily Means



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