
**Bath & North East
Somerset Council**

Improving People's Lives

2026 Air Quality Monitoring Report – Farrington Gurney (provisional data)

Date: August 2026

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Background information

A request to monitor the air quality in Farrington Gurney has been raised by Residents and the Parish Council regarding complaints of air pollution near Farrington Gurney - particulate matter (PM₁₀, PM_{2.5}) and nitrogen dioxide (NO₂).

Air pollution

Air pollution is the leading environmental health risk to the UK public, with an estimated 29,000 to 43,000 deaths annually attributed to it in the UK alone¹. Long-term exposure to air pollution is linked to premature death associated with lung, heart and circulatory conditions, while short-term exposure exacerbates asthma and increases hospital admissions.

There is evidence to suggest that, despite strengthening environmental policies, the poorest in our society are being unfairly exposed to worse air pollution without seeing improvements². Clean air is important for everyone and will alleviate stress on our health system, improve people's lives and make our society more equitable.

Types and causes of air pollution

There are different causes and sources of air pollution. Historically, the combustion of fossil fuels for energy, such as coal, produced smoke and sulphur dioxide (SO₂).

Now road traffic is chiefly responsible for the poor air quality in the UK contributing to nitrogen dioxide (NO₂) pollution and particulate matter (PM) pollution.

Particulate matter pollution, referred to as PM₁₀ or PM_{2.5}, is made up of tiny bits of material from all sorts of places including smoke from fires, exhaust fumes, smoking or the dust from brake pads on vehicles. These particles are too small to see, and we can breathe them in without noticing.

Nitrogen dioxide (NO₂) comes from burning fuels or other materials, so levels are especially high around roads. But they are also produced from home gas boilers, bonfires, and other sources as well. You cannot see or smell nitrogen oxides, but they mix with the air we breathe and are absorbed into our bodies. Vehicle exhaust emissions contribute 35 per cent of all UK nitrogen oxide emissions (NO_x) which is the single greatest source³.

¹ DEFRA Air Quality Appraisal: Damage Cost Guidance

<https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance>

² Air Quality Management Resource Centre, UWE. Emissions vs exposure: Increasing injustice from road traffic-related air pollution in the United Kingdom, 2019

<https://www.sciencedirect.com/science/article/pii/S1361920919300392>

³ DEFRA. Air quality: explaining air pollution – at a glance, 2019.

<https://www.gov.uk/government/publications/air-quality-explaining-air-pollution/air-quality-explainingair-pollution-at-a-glance>

How does air pollution affect our health?

Air pollution particles and gases enter our bodies and can damage our cells in different ways. They usually get into our lungs first and can then move into our blood to reach organs such as our heart and brain.

Any amount of pollution can be damaging to our health, but the more that you are exposed to, the bigger the risk and the larger the effect on you and your family. Some people are more vulnerable to the impacts of air pollution than others. Those more at risk from air pollution include children, pregnant and older people; and people with lung conditions such as asthma, chronic obstructive pulmonary disease (COPD) and lung cancer, and people with heart conditions such as coronary artery disease, heart failure and high blood pressure.

Air pollution in Bath and North East Somerset Council

In Bath and North East Somerset, annual average nitrogen dioxide (NO₂) levels did not exceed the legal limit of 40 µg/m³ in 2025. Further information can be found in the [2026 Annual Air Quality Report](#).

Location

The monitoring occurred from the 24th of April to the 17th of August 2026, the location of the monitor is represented in Figure 1.

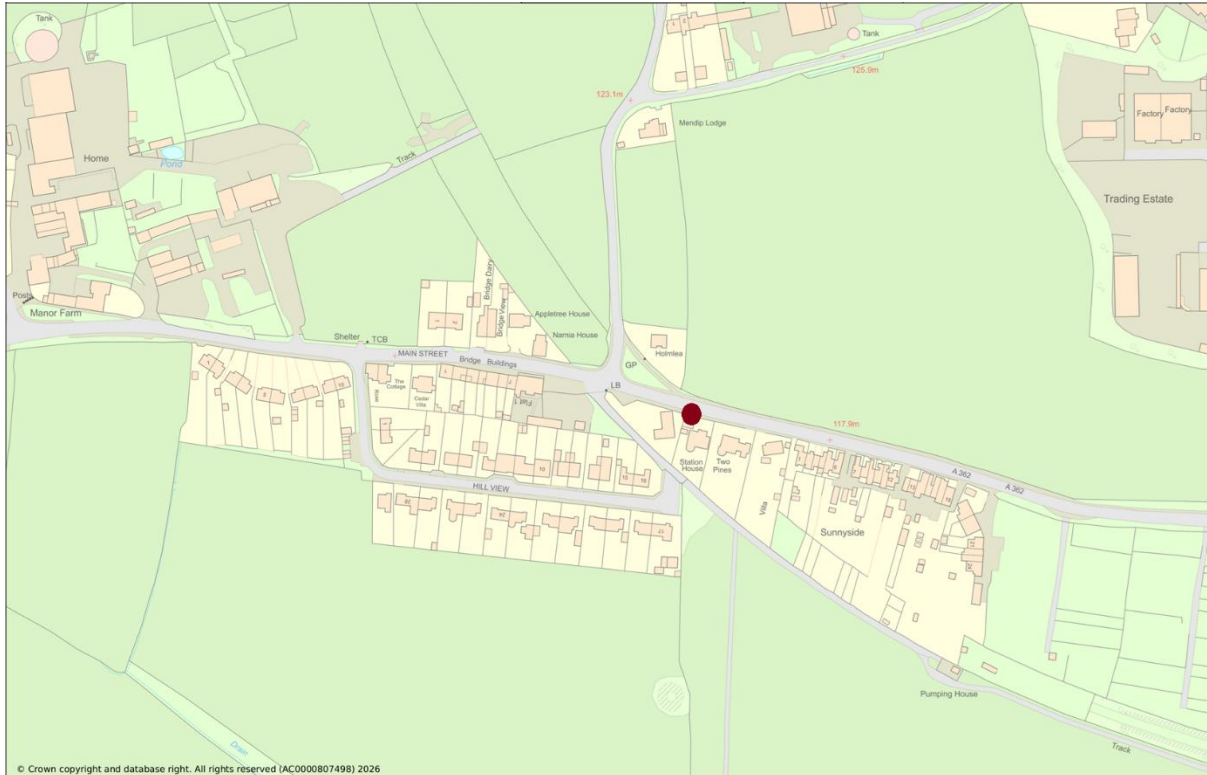


Figure 1: Air quality monitor location in Farrington Gurney (Red dot Zephyr location)



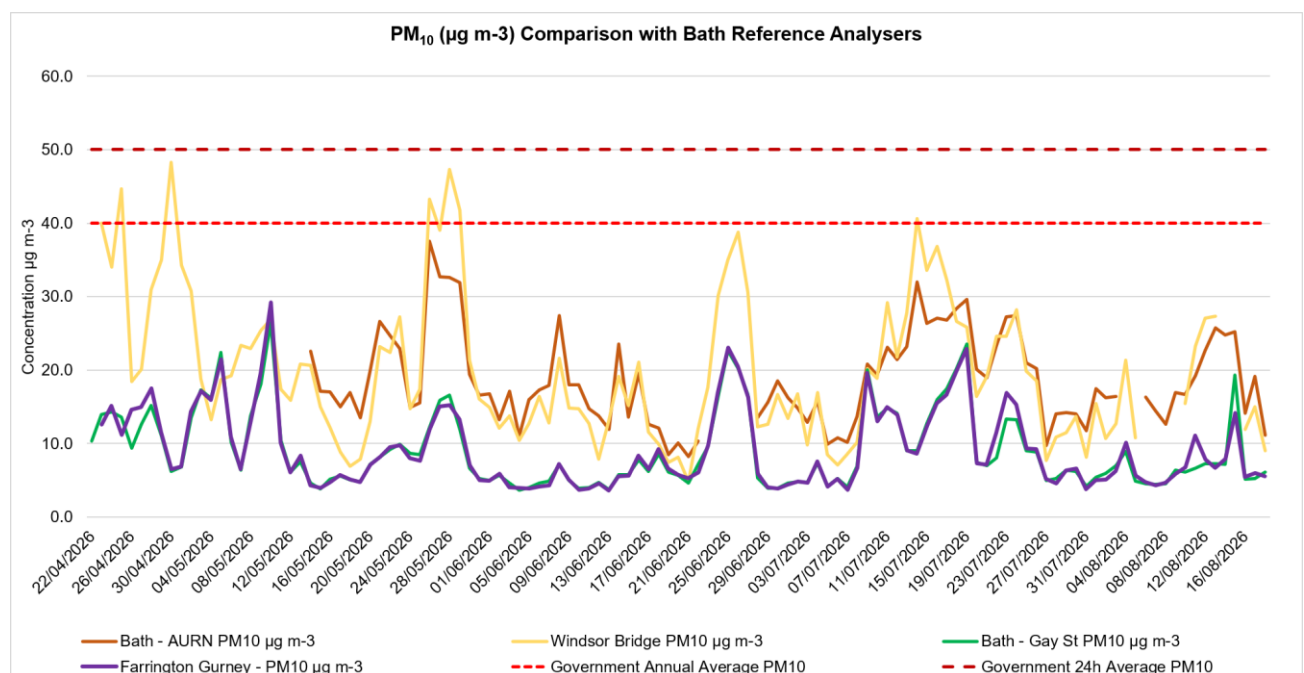
Figure 2: Zephyr in the lamp post at Farrington Gurney - Sunnyside

Data Analysis

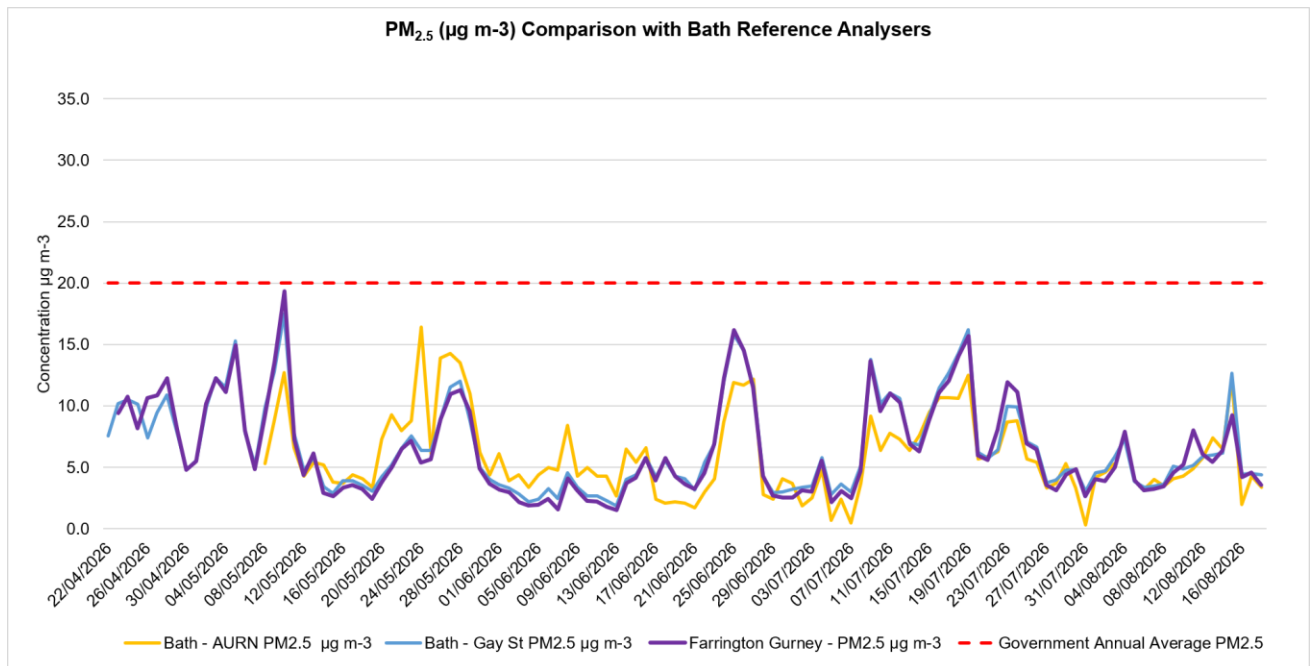
The results of the monitoring carried out in Farrington Gurney, are shown in the graphs below. The results remain provisional until final end of year QA/QC checks have been completed.

The monitoring occurred from the 24th of April to the 17th of August 2026.

The data represented in Graph 1 and Graph 2 is the daily average particulate matter data collected by the air quality monitor in Farrington Gurney. Graph 1 and Graph 2 demonstrate the comparison of the data against the Zephyr unit Jane located in Gay Street Bath (Graph 1 and Graph 2), reference analysers in Bath for PM₁₀ (Graph 1) and PM_{2.5} (Graph 2) for the monitoring period.



Graph 1: PM₁₀ concentration data compared against Bath reference analysers (daily average).



Graph 2: PM_{2.5} concentration data compared against Bath reference analysers (daily average).

Commentary

During the monitoring in Farrington Gurney, the particulate matter concentrations showed similar trends to those in Bath, with PM₁₀ and PM_{2.5} concentrations at similar levels. The Windsor Bridge reference analyser has higher concentrations throughout the monitoring period due to a localised source of PM₁₀. The average results for PM_{2.5} remain below annual average objective of 20 µg/m³.

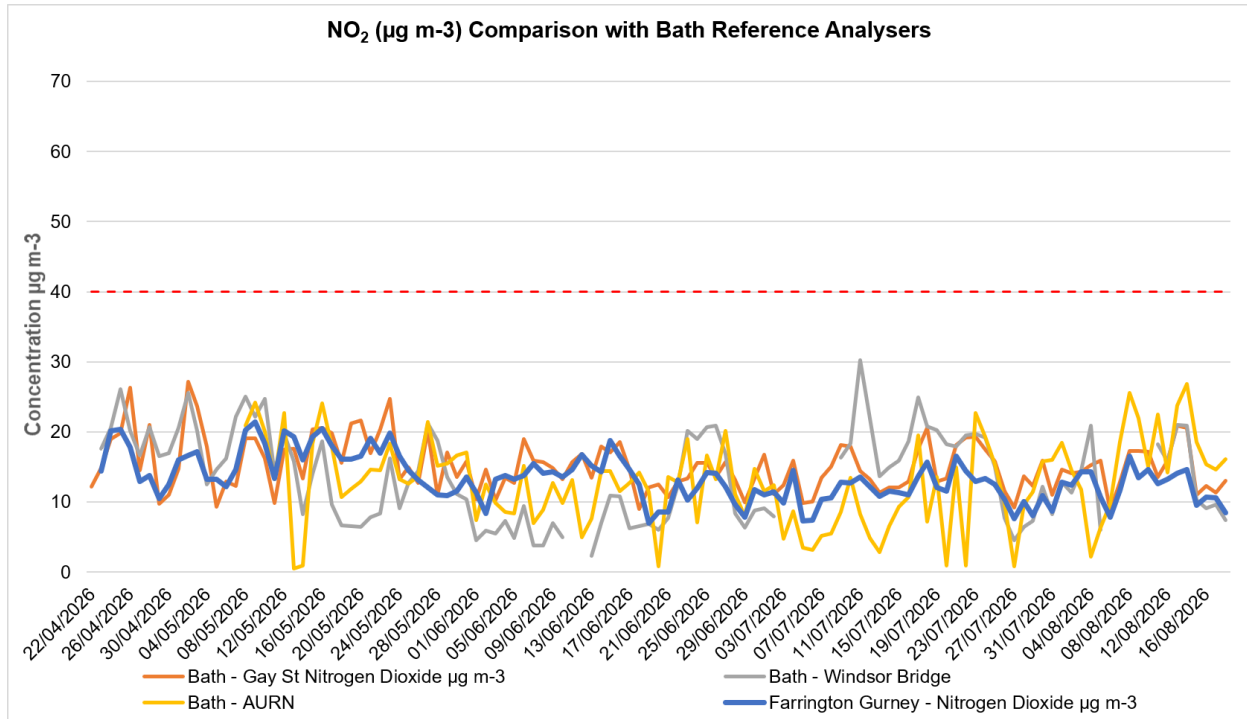
Site	Monitoring Period Average PM ₁₀ (µg/m ³)	Maximum PM ₁₀ 24-hour Mean (µg/m ³) (90.4 th percentile)	Monitoring Period Average PM _{2.5} (µg/m ³)
Farrington Gurney	9	29 (17)	6
Windsor Bridge (Lower Bristol Rd)	20	48 (35)	-
Zephyr “Jane” (Gay Street)	9	26 (17)	7
Bath A4 Roadside (London Road)	19	38 (27)	6

Table 1 – PM Monitoring Results: Zephyr analyser and comparison with Bath PM monitoring.

Commentary

Table 1 shows the particulate matter concentrations at continuous analysers on Windsor Bridge, Bath A4 Roadside and Zephyr in Gay Street during the same monitoring period as the Farrington Gurney monitoring. The monitoring on Windsor Bridge and Bath A4 Roadside had a period average of 20 µg/m³ and 19 µg/m³ for PM₁₀, whereas this was reduced to 9 µg/m³ as an average during the monitoring period on Gay Street and Farrington Gurney. All concentrations are well below the Government’s annual average objective of 40 µg/m³. Table 1 also shows that the maximum 24-hour concentration at Farrington Gurney was 29 µg/m³, 38 µg/m³ at Bath A4 Roadside and 26 µg/m³ at Gay Street, compared with 48 µg/m³ at Windsor Bridge for the Government’s 24-hour Objective of 50 µg/m³. In Farrington Gurney, the 24-hour Objective was not exceeded during the monitoring period. We apply the 90.4th percentile, if the period of valid data is less than 85% of the year. The 90.4th percentile of 24-hour means is provided in brackets (if it is below 50 µg/m³, it means it won’t exceed the 35 occurrences).

The PM_{2.5} monitoring on Gay Street and Farrington Gurney recorded a period average of 6 µg/m³, while an average of 7 µg/m³ was recorded during the monitoring period in London Road. All concentrations are well below the Government’s 20 µg/m³ objective.



Graph 3: Daily average NO₂ concentrations during the monitoring period.

Commentary

In Graph 3 we can observe the daily variation of NO₂ concentrations during the monitoring period, during this period daily average concentrations remain below 40 µg/m³ in Farrington Gurney. In comparison to the air quality monitors in Bath, we can see the trends and average concentrations are similar.

Site	Monitoring Period Average NO ₂ (µg/m ³)	Maximum NO ₂ hourly Mean (µg/m ³)
Farrington Gurney	13	39
Zephyr “Jane” (Gay Street)	15	80
Windsor Bridge (Lower Bristol Road)	14	61
Bath A4 Roadside (London Road)	13	63

Table 2 – NO₂ Monitoring Results: Zephyr analyser and comparison with Bath NO₂ monitoring.

Commentary

Table 2 shows the nitrogen dioxide concentrations at the continuous analyser on, Lower Bristol Road, London Road and Zephyr in Gay Street during the same monitoring period as the Farrington Gurney monitoring. The monitoring on Gay Street, Windsor Bridge and Farrington Gurney had an average of 15 $\mu\text{g}/\text{m}^3$, 14 $\mu\text{g}/\text{m}^3$ and 13 $\mu\text{g}/\text{m}^3$ for NO_2 , for the concentration on London Road continuous analyser was 13 $\mu\text{g}/\text{m}^3$. All concentrations are well below the Government's 40 $\mu\text{g}/\text{m}^3$ objective.

Table 2 also shows that the maximum hourly concentration at Farrington Gurney was 39 $\mu\text{g}/\text{m}^3$ which did not exceed the Government's hourly Objective of 200 $\mu\text{g}/\text{m}^3$, compared with 80 $\mu\text{g}/\text{m}^3$ at Gay Street and 61 $\mu\text{g}/\text{m}^3$ in Windsor Bridge and 63 $\mu\text{g}/\text{m}^3$ in London Road.

Conclusion

The monitoring at Farrington Gurney showed the pollutant concentrations for PM_{10} and $\text{PM}_{2.5}$ were an average of 9 $\mu\text{g}/\text{m}^3$ and 6 $\mu\text{g}/\text{m}^3$ respectively during the monitoring period. The average concentrations are below the Government's annual average objectives of 40 $\mu\text{g}/\text{m}^3$ for PM_{10} and 20 $\mu\text{g}/\text{m}^3$ for $\text{PM}_{2.5}$. The data shows that the maximum 24-hour concentration for PM_{10} at Farrington Gurney was 29 $\mu\text{g}/\text{m}^3$. The maximum 24-hour average concentration for PM_{10} was under the Government's short-term objective of 50 $\mu\text{g}/\text{m}^3$ of PM_{10} .

The average NO_2 concentration was 13 $\mu\text{g}/\text{m}^3$ and was well below the Government Objectives annual objective of 40 $\mu\text{g}/\text{m}^3$. There were also no exceedances of the hourly objective of 200 $\mu\text{g}/\text{m}^3$.