UK Health Security Agency

Environmental monitoring following the Grenfell Tower fire

Data update

18 September 2025

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Overview

The UK Health Security Agency (UKHSA) has been assessing and monitoring air quality in the area surrounding Grenfell Tower since the start of the fire on 14 June 2017. Initial risk assessments carried out in conjunction with partner agencies focussed on the smoke plume which rose upwards rapidly and was carried in a northerly direction by the wind. This meant that there was a low risk of impact on local air quality from the fire. Assessment of data from The London Air Quality Monitoring network was used to confirm the initial risk assessment that levels of particulate matter were low and remained so over the next 10 days.

UKHSA started additional monitoring of air quality close to Grenfell Tower on 24 June 2017. A range of pollutants have been monitored: particulate matter, asbestos, dioxins, furans, dioxin-like polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs). These have the potential for short and long term health effects and by measuring them we can understand if there is a risk to health. Particulate matter monitoring runs continuously, whilst other samples are collected over a period of time and need to be sent away for analysis.

The monitoring strategy has been agreed with partners within a multi-agency monitoring group. The samples are collected and analysed by an independent environmental company and the results are assessed by UKHSA specialist environmental public health scientists.

The air quality monitoring strategy is regularly reviewed based on activities around the site and may be adapted. During summer 2018, following the covering of the tower, the strategy changed and monitoring for dioxins, furans, PCBs and PAHs stopped as these chemicals were no longer likely to be released. Average results, over the 13 months of monitoring, for dioxins, furans and dioxin-like PCBs and PAHs showed levels comparable to background levels for London.

From March 2025, the monitoring has been enhanced to include nitrogen dioxide (NO_2), along with particulate matter and asbestos, which will continue to develop and provide a baseline level, and ensure we are able to assess any impacts on air quality as and when any further activity takes place on the site.

Results to date have shown that levels of particulate matter and NO_2 remain low and asbestos monitoring results indicate levels at or below the limit of detection in areas surrounding Grenfell Tower. Current evidence, therefore, suggests the risk to public health from air pollution remains low.

This report covers the results from the last 4 weeks and environmental monitoring data is shown alongside an explanation of the data in terms of potential impacts on health. For all monitoring results between 24 June 2017 to 29 December 2021, see the Environmental monitoring following the Grenfell tower fire report dated 29 December 2021.

Background to monitoring

UKHSA has been assessing and monitoring air quality in the area surrounding Grenfell Tower since the fire started. During the initial stages of the fire the main focus for the assessment was on the smoke plume, which rose upwards rapidly and was carried in a northerly direction by the wind. The London Air Quality Monitoring network was used to assess impacts from particulate matter (PM_{10}) within the smoke plume on air quality in the surrounding area and further away. Further details of this initial assessment is outlined in the Environmental monitoring following the Grenfell tower fire report dated 29 December 2021.

UKHSA has reviewed the evidence on the contents of smoke plumes after fires. Although each fire will have specific characteristics, there are common chemicals which are usually released in smoke, such as particulate matter which can be used as a marker for other emissions.

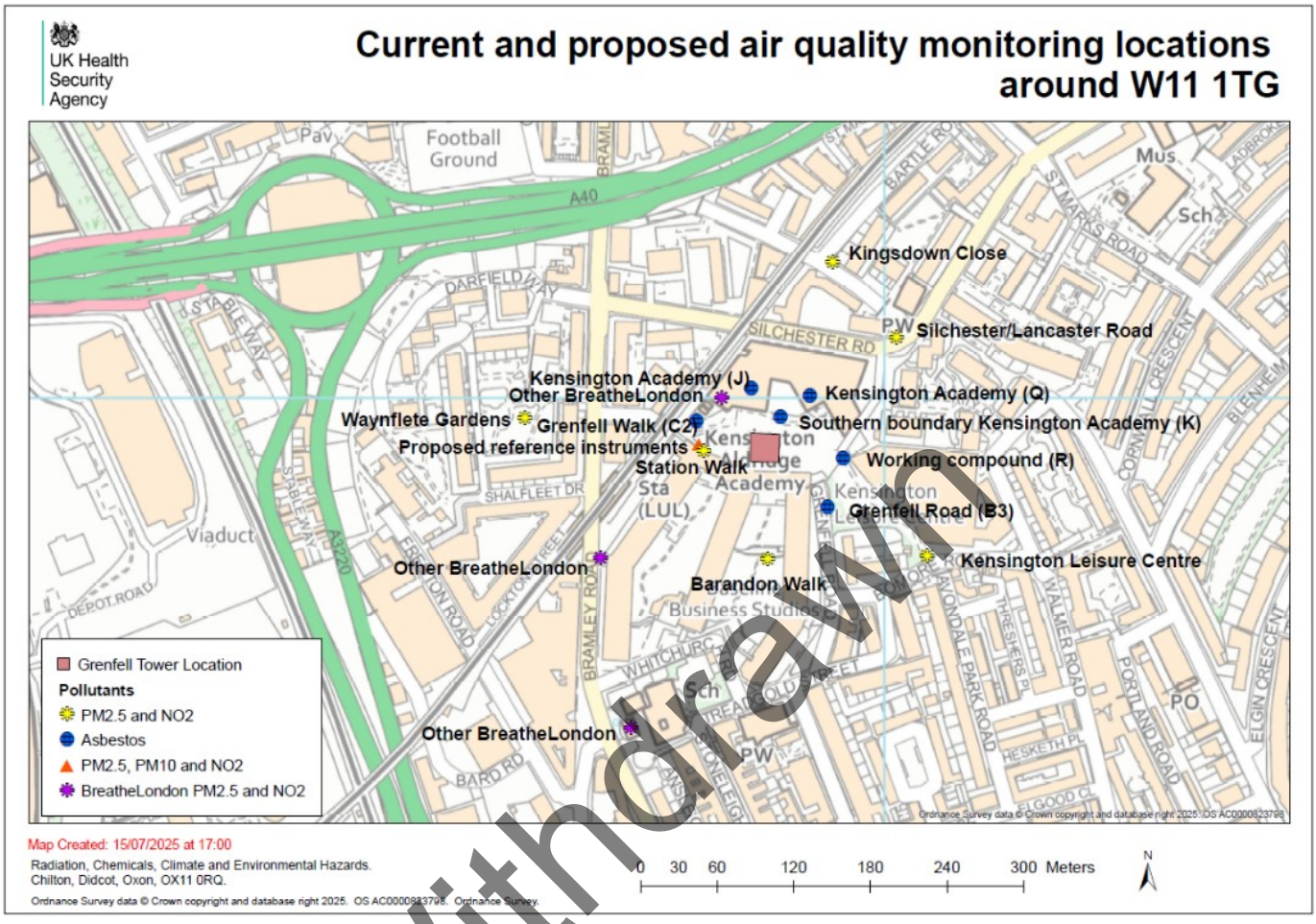
UKHSA commissioned monitoring for particulate matter, asbestos, dioxins, furans, PCBs and PAHs. Fires are not the only source of these contaminants; there are other sources in the environment, for example traffic and industrial sources. However, it is important to ensure that the fire had not resulted in significantly higher levels of these chemicals in the local area, and to also ensure that as work is undertaken on the site, it does not result in notably elevated levels of these contaminants.

During summer 2018, activity on the site was reduced following the covering of the tower. Therefore, the monitoring strategy changed to stop monitoring for dioxins, furans, PCBs and PAH as the risk assessment determined that these chemicals are no longer likely to be released. However, monitoring for particulate matter and asbestos continues with NO_2 measured from March 2025 to provide a baseline level. This ensures we are able to assess any impacts on air quality as and when any further activity takes place on the site.

Monitoring locations

The monitoring locations have moved over time as the site cordon and activities on site have changed. For example, for asbestos, monitoring points will be moved around the site to ensure good coverage based on site activities. The map will be updated to show the current monitoring locations. Further details and pictures showing the monitoring locations can be found in Appendix 1.

Figure 1. Map showing: the W11 1TG postcode area; the current UKHSA asbestos monitoring locations; the current UKHSA and nearby Breathe London Communities particulate matter and nitrogen dioxide monitoring locations



Particulate matter and nitrogen dioxide monitoring and results

UKHSA introduced continuous monitoring for particulate matter in close proximity to Grenfell Tower on 24 June 2017 at 3 locations (Kensington Aldridge Academy; Kensington Leisure Centre and Blechynden Street). A fourth monitoring site for particulate matter (Grenfell Road) was set up on 3 July 2017.[1]

Following a review of the monitoring locations, the particulate matter monitor at Blechynden Street was moved on 17 August 2017 to a location close to the Latimer Road TMO office. In Blechynden Street the monitor was located close to a motor garage and was occasionally

[1] It should be noted that the particulate matter data is indicative data therefore should not be used solely to make health protection decisions. There may be gaps as a result of power failure, instrument error, or instrument calibration. Issues are identified and addressed as soon as possible. The data may be updated following further quality assurance.

impacted by vehicle exhaust emissions. The monitoring at Grenfell Road ceased on the 20 August 2018 due to site boundary changes.

A change in monitoring equipment in March 2025 has allowed for an expansion of the to six locations with measurements for fine particulate matter ($PM_{2.5}$) as well as NO_2. The new equipment are sensors and they are equivalent to the instruments that they replace.

Two monitoring locations: Kensington Leisure Centre and Lancaster / Silchester Road are in close proximity to the previous Kensington Leisure Centre and Kensington Aldridge Academy monitoring points. A monitoring point has also been installed within the site boundary on Grenfell Road; although this monitor has been moved to be co-located with an enhanced reference site (now identified as Station Walk) in June 2025. A further 3 monitoring locations have been selected within the local community (at Kingsdown Close; Waynflete Square; and Barandon Walk).

Table 1 and Table 2 below show the 24-hour average (and maximum hourly) levels of $PM_{2.5}$ and NO_2 respectively measured each day over the last 4 weeks at the 6 UKHSA commissioned monitoring sites close to Grenfell Tower. UKHSA commissioned monitoring locations are assessed on a daily basis by specialist environmental public health scientists and considered against wider monitoring networks, including levels measured at the North Kensington London Air Quality Network site (readings also reported as hourly averages) and the London Mean (produced by Imperial College London based on monitoring data across the London Air Quality Network). We are advised by Imperial College London that the London Mean $PM_{2.5}$ and NO_2 data is typically very similar to the North Kensington levels so it would be suitable to use the mean level as further comparator. Monitoring is also assessed on a weekly basis alongside monitoring locations commissioned on the wider Breathe London Communities network, although these are not included in this table.

Table 1. 24-hour average (and maximum hourly) levels of particulate matter ($PM_{2.5}$) measured each day over the last 4 weeks at the 6 UKHSA-commissioned monitoring sites close to Grenfell Tower, the North Kensington London Air Quality Network Site and the London Mean

The numbers in brackets indicate the daily air quality index banding for the measurement. This is also reflected in the colour highlighting.

Date	24 hour mean $PM_{2.5}$ µg/m^3								Hourly maximum $PM_{2.5}$ µg/m^3						
	Lancaster/ Silchester Road	Kingsdown Close	Kensington Leisure Centre	Waynflete Square	Barandon Walk	Station Walk	North Kensington	London mean	Lancaster/ Silchester Road	Kingsdown Close	Kensington Leisure Centre	Waynflete Square	Barandon Walk	Station Walk	North Kensington
Wed 20/08/25	11 (1)	10 (1)	10 (1)	4 (1)	4 (1)	5 (1)	5 (1)	7 (1)	26	23	25	14	14	15	18
Thu 21/08/25	5 (1)	5 (1)	4 (1)	5 (1)	4 (1)	5 (1)	5 (1)	6 (1)	6	6	6	7	6	7	6
Fri 22/08/25	9 (1)	8 (1)	8 (1)	6 (1)	5 (1)	5 (1)	4 (1)	7 (1)	12	12	11	14	10	11	7
Sat 23/08/25	7 (1)	6 (1)	5 (1)	6 (1)	5 (1)	5 (1)	6 (1)	7 (1)	11	11	8	9	5	6	7
Sun 24/08/25	5 (1)	5 (1)	5 (1)	6 (1)	5 (1)	5 (1)	5 (1)	7 (1)	10	10	9	11	7	10	9
Mon 25/08/25	9 (1)	9 (1)	8 (1)	5 (1)	4 (1)	4 (1)	6 (1)	7 (1)	12	11	10	10	5	6	12
Tue 26/08/25	10 (1)	10 (1)	9 (1)	5 (1)	5 (1)	6 (1)	6 (1)	8 (1)	12	12	11	11	8	9	12
Wed 27/08/25	9 (1)	9 (1)	8 (1)	6 (1)	5 (1)	6 (1)	6 (1)	8 (1)	9	9	9	8	6	7	7
Thu 28/08/25	8 (1)	8 (1)	8 (1)	4 (1)	4 (1)	4 (1)	4 (1)	6 (1)	10	9	9	5	5	5	5
Fri 29/08/25	9 (1)	9 (1)	9 (1)	4 (1)	5 (1)	5 (1)	3 (1)	6 (1)	11	11	10	7	7	8	5
Sat 30/08/25	8 (1)	7 (1)	6 (1)	3 (1)	3 (1)	4 (1)	3 (1)	5 (1)	12	11	11	5	5	5	4
Sun 31/08/25	8 (1)	7 (1)	6 (1)	5 (1)	5 (1)	5 (1)	6 (1)	7 (1)	10	10	8	7	5	6	8
Mon 01/09/25	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	6 (1)	5	5	5	5	5	5	5
Tue 02/09/25	3 (1)	3 (1)	3 (1)	3 (1)	3 (1)	4 (1)	4 (1)	7 (1)	4	6	4	5	4	6	5
Wed 03/09/25	3 (1)	3 (1)	2 (1)	3 (1)	3 (1)	4 (1)	3 (1)	6 (1)	7	6	5	6	6	7	9
Thu 04/09/25	3 (1)	3 (1)	2 (1)	3 (1)	3 (1)	3 (1)	3 (1)	5 (1)	5	5	5	6	5	6	6
Fri 05/09/25	9 (1)	9 (1)	9 (1)	4 (1)	4 (1)	4 (1)	4 (1)	7 (1)	11	11	11	9	5	6	5
Sat 06/09/25	10 (1)	10 (1)	10 (1)	5 (1)	4 (1)	4 (1)	4 (1)	7 (1)	12	12	12	8	5	5	6
Sun 07/09/25	10 (1)	10 (1)	9 (1)	4 (1)	4 (1)	5 (1)	4 (1)	7 (1)	16	15	15	9	8	9	8
Mon 08/09/25	9 (1)	8 (1)	7 (1)	3 (1)	3 (1)	4 (1)	4 (1)	6 (1)	10	10	9	4	4	4	4
Tue 09/09/25	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	4 (1)	7 (1)	4	4	4	7	4	4	5
Wed 10/09/25	9 (1)	9 (1)	8 (1)	3 (1)	2 (1)	3 (1)	3 (1)	5 (1)	13	12	12	6	6	6	4
Thu 11/09/25	9 (1)	9 (1)	8 (1)	5 (1)	4 (1)	6 (1)	4 (1)	7 (1)	11	10	10	7	7	11	7
Fri 12/09/25	9 (1)	9 (1)	8 (1)	4 (1)	4 (1)	5 (1)	4 (1)	6 (1)	18	18	19	15	16	19	5
Sat 13/09/25	9 (1)	9 (1)	8 (1)	3 (1)	3 (1)	3 (1)	3 (1)	6 (1)	12	11	12	6	4	4	4
Sun 14/09/25	10 (1)	10 (1)	9 (1)	4 (1)	4 (1)	5 (1)	4 (1)	6 (1)	14	13	12	9	9	10	7
Mon 15/09/25	6 (1)	6 (1)	5 (1)	6 (1)	5 (1)	7 (1)	6 (1)	7 (1)	9	9	7	8	8	9	8
Tue 16/09/25	4 (1)	4 (1)	3 (1)	4 (1)	4 (1)	4 (1)	4 (1)	6 (1)	5	5	5	6	5	6	6

The mean or average results for each day (24 hour average) have been compared and displayed in the table with a colour coding used in the UK's daily air quality index (DAQI). The results from the commissioned monitoring are mainly within the 'low' air pollution band (1 to 3).

The DAQI is a measure of the levels of air pollution. The index is numbered from 1 to 10 and is divided into 4 bands, low (1) to very high (10), to provide detail about air pollution levels in a clear way.

Index bands

1	2	3	4	5	6	7	8	9	10
Low			Moderate			High			Very high

$PM_{2.5}$

This table is based on the daily mean concentration for historical data, latest 24 hour running mean for the current day.

Index band µg/m³	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	Low	Low	Low	Moderate	Moderate	Moderate	High	High	High	Very high
	0 to 11	12 to 23	24 to 35	36 to 41	42 to 47	48 to 53	54 to 58	59 to 64	65 to 70	71 or more

Table 2. 24-hour average (and maximum hourly) levels of nitrogen dioxide (NO_2) measured each day over the past 4 weeks at the 6 UKHSA-commissioned monitoring sites close to Grenfell Tower, the North Kensington London Air Quality Network Site and the London Mean

The numbers in brackets indicate the daily air quality index banding for the measurement. This is also reflected in the colour highlighting.

Date	24-hour mean NO_2 µg/m^3								Hourly maximum NO_2 µg/m^3						
	Lancaster/ Silchester Road	Kingsdown Close	Kensington Leisure Centre	Waynflete Square	Barandon Walk	Station Walk	North Kensington	London mean	Lancaster/ Silchester Road	Kingsdown Close	Kensington Leisure Centre	Waynflete Square	Barandon Walk	Station Walk	North Kensington
Wed 20/08/25	4 (1)	5 (1)	5 (1)	9 (1)	8 (1)	8 (1)	3 (1)	9 (1)	6	7	6	16	14	14	7
Thu 21/08/25	8 (1)	8 (1)	9 (1)	4 (1)	5 (1)	5 (1)	5 (1)	12 (1)	13	15	16	7	7	7	10
Fri 22/08/25	13 (1)	16 (1)	13 (1)	10 (1)	10 (1)	10 (1)	15 (1)	23 (1)	26	30	24	17	19	18	46
Sat 23/08/25	12 (1)	14 (1)	15 (1)	7 (1)	7 (1)	7 (1)	11 (1)	17 (1)	23	28	30	22	20	15	18
Sun 24/08/25	10 (1)	13 (1)	11 (1)	17 (1)	15 (1)	10 (1)	15 (1)	18 (1)	18	23	19	26	25	18	39
Mon 25/08/25	11 (1)	14 (1)	11 (1)	9 (1)	9 (1)	7 (1)	16 (1)	20 (1)	16	21	15	14	14	11	39
Tue 26/08/25	11 (1)	16 (1)	13 (1)	17 (1)	16 (1)	13 (1)	19 (1)	21 (1)	25	34	27	34	31	27	62
Wed 27/08/25	6 (1)	6 (1)	6 (1)	7 (1)	7 (1)	6 (1)	6 (1)	13 (1)	15	15	15	12	13	12	11
Thu 28/08/25	8 (1)	8 (1)	8 (1)	6 (1)	5 (1)	5 (1)	6 (1)	13 (1)	22	22	21	10	10	10	15
Fri 29/08/25	6 (1)	7 (1)	6 (1)	6 (1)	5 (1)	5 (1)	13 (1)	17 (1)	10	11	10	9	8	9	31
Sat 30/08/25	6 (1)	6 (1)	7 (1)	4 (1)	4 (1)	4 (1)	7 (1)	10 (1)	10	11	11	6	6	6	29
Sun 31/08/25	6 (1)	8 (1)	5 (1)	8 (1)	7 (1)	7 (1)	4 (1)	9 (1)	10	15	10	11	12	12	16
Mon 01/09/25	10 (1)	16 (1)	11 (1)	11 (1)	13 (1)	9 (1)	8 (1)	15 (1)	15	22	15	15	19	12	24
Tue 02/09/25	8 (1)	8 (1)	8 (1)	7 (1)	7 (1)	6 (1)	8 (1)	15 (1)	15	15	15	10	11	9	16
Wed 03/09/25	6 (1)	10 (1)	7 (1)	3 (1)	3 (1)	3 (1)	5 (1)	10 (1)	9	16	11	5	4	4	8
Thu 04/09/25	10 (1)	14 (1)	13 (1)	11 (1)	10 (1)	7 (1)	8 (1)	15 (1)	16	26	19	19	17	11	31
Fri 05/09/25	8 (1)	12 (1)	7 (1)	12 (1)	13 (1)	10 (1)	12 (1)	20 (1)	16	20	15	19	20	17	21
Sat 06/09/25	9 (1)	12 (1)	10 (1)	13 (1)	15 (1)	10 (1)	12 (1)	20 (1)	14	19	15	20	23	16	26
Sun 07/09/25	3 (1)	3 (1)	3 (1)	3 (1)	3 (1)	3 (1)	7 (1)	12 (1)	4	4	4	5	5	5	15
Mon 08/09/25	12 (1)	11 (1)	12 (1)	9 (1)	9 (1)	7 (1)	3 (1)	16 (1)	19	19	20	14	14	12	9
Tue 09/09/25	9 (1)	12 (1)	9 (1)	9 (1)	10 (1)	8 (1)	8 (1)	21 (1)	20	23	20	19	21	18	32
Wed 10/09/25	8 (1)	10 (1)	8 (1)	9 (1)	10 (1)	6 (1)	10 (1)	15 (1)	16	17	15	12	15	8	20
Thu 11/09/25	6 (1)	6 (1)	6 (1)	8 (1)	7 (1)	6 (1)	7 (1)	13 (1)	10	11	11	14	12	9	14
Fri 12/09/25	6 (1)	12 (1)	6 (1)	12 (1)	12 (1)	9 (1)	7 (1)	14 (1)	12	20	12	17	19	13	14
Sat 13/09/25	8 (1)	12 (1)	9 (1)	9 (1)	11 (1)	7 (1)	8 (1)	14 (1)	13	19	14	14	16	10	15
Sun 14/09/25	12 (1)	13 (1)	12 (1)	5 (1)	5 (1)	4 (1)	8 (1)	12 (1)	21	24	21	8	10	8	17
Mon 15/09/25	2 (1)	3 (1)	2 (1)	2 (1)	2 (1)	2 (1)	3 (1)	7 (1)	4	5	4	3	3	3	8
Tue 16/09/25	8 (1)	11 (1)	6 (1)	6 (1)	5 (1)	5 (1)	7 (1)	13 (1)	12	20	11	10	9	9	23

The mean or average results for each day (24 hour average) have been compared and displayed in the table with a colour coding used in the UK's daily air quality index (DAQI). The results from the commissioned monitoring are mainly within the 'low' air pollution band (1 to 3).

NO_2

This table is based on the daily mean concentration for historical data, latest 24 hour running mean for the current day.

Index band µg/m³	1	2	3	4	5	6	7	8	9	10
	Low	Low	Low	Moderate	Moderate	Moderate	High	High	High	Very high
	0 to 67	68 to 134	135 to 200	201 to 267	268 to 334	335 to 400	401 to 467	468 to 534	535 to 600	601 or more

The following figures present $PM_{2.5}$ and NO_2 concentrations at each of the 6 UKHSA commissioned monitoring locations and compared against relevant UK air quality standards.

Figure 2 shows the hourly $PM_{2.5}$ concentrations over the last week of monitoring. There is no short-term (less than annual) UK air quality objective for $PM_{2.5}$.

Figure 3 shows the 24-hour average $PM_{2.5}$ levels over the last 4 weeks of monitoring. The figure also presents the UK national air quality objective for $PM_{2.5}$ of 20 $\mu g/m^3$ as an annual mean, which aims to protect health.

For all particulate matter monitoring results from 24 June 2017 to 29 December 2021, see the Environmental monitoring following the Grenfell tower fire report dated 29 December 2021.

Figure 4 shows the hourly NO_2 concentrations over the last week of monitoring. The figure also presents the UK national air quality objective for NO_2 of 200 $\mu g/m^3$ for the hourly mean, which aims to protect health. This objective allows for the concentration of 200 $\mu g/m^3$ not to be exceeded more than 18 times in a year.

Figure 5 shows the 24-hour average NO_2 levels over the last 4 weeks of monitoring. The figure also presents the UK national air quality objective for NO_2 of 40 $\mu g/m^3$ for the annual mean, which aims to protect health.

A summary of the health impacts associated with particulate matter and NO_2 is provided in Appendix 2.

Figure 2. Hourly particulate matter ($PM_{2.5}$) concentrations over the last week for the 6 UKHSA-commissioned monitoring locations

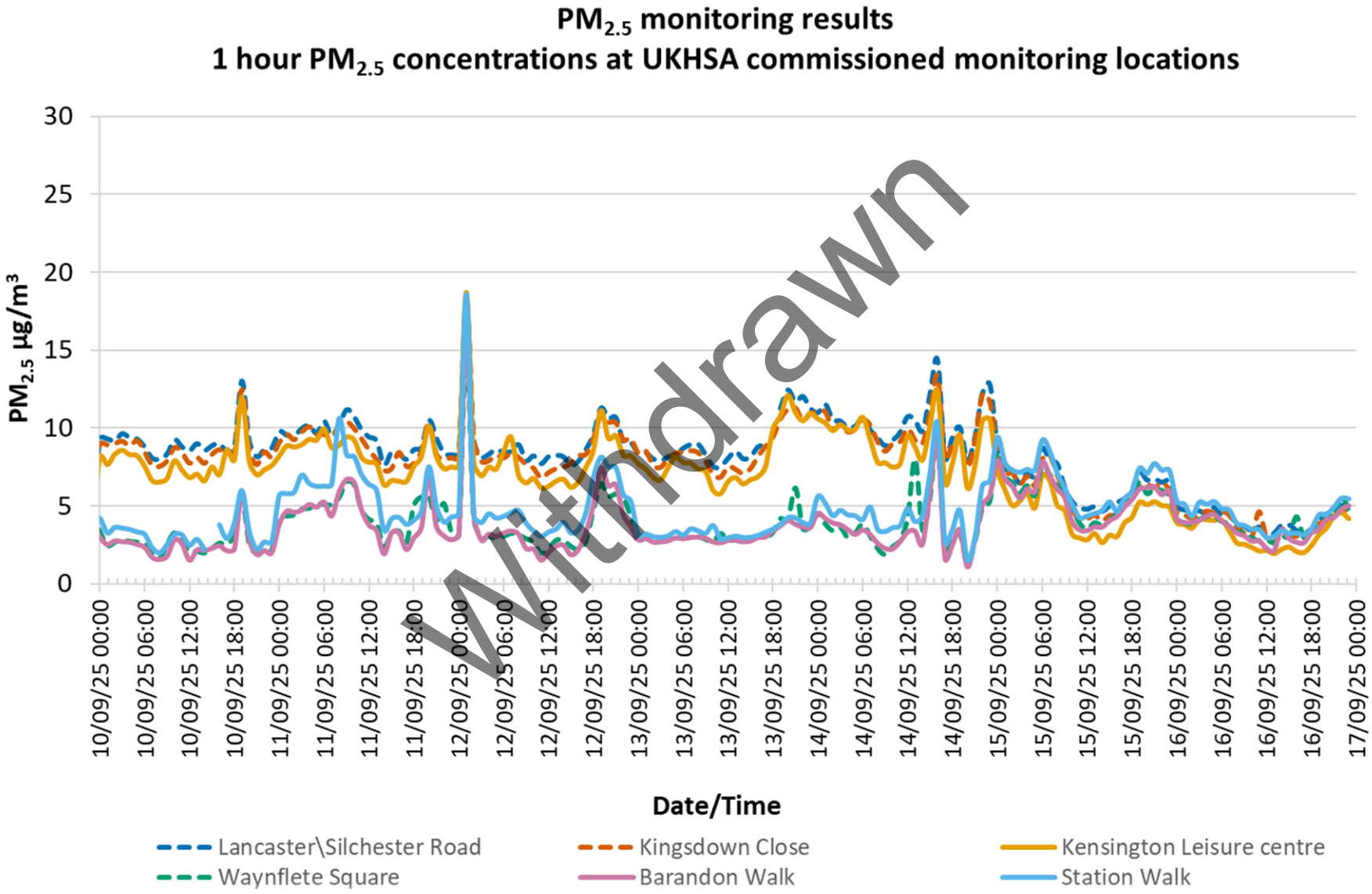


Figure 3. 24-hour rolling average particulate matter ($PM_{2.5}$) concentrations over the last 4 weeks for each of the 6 UKHSA-commissioned monitoring locations

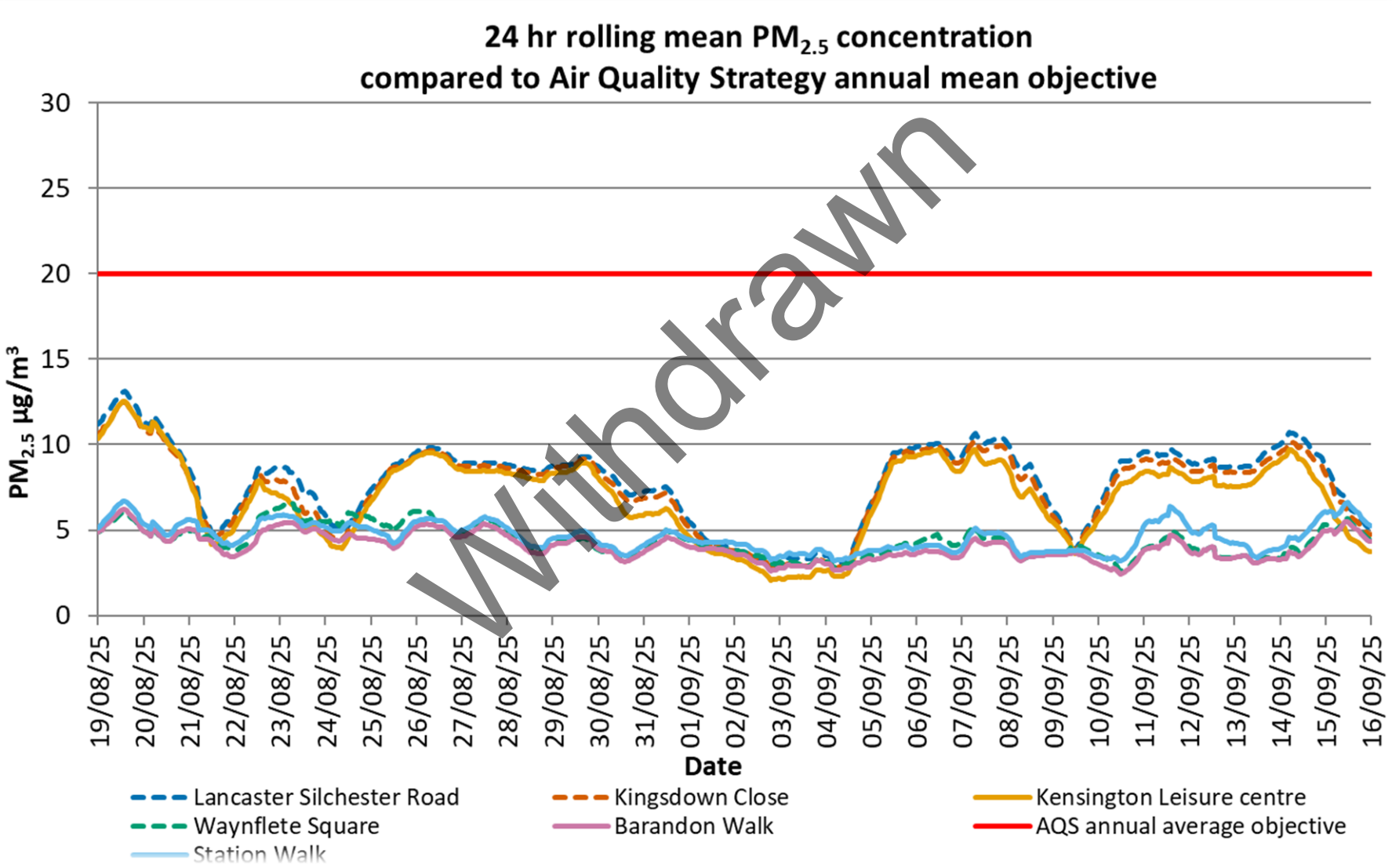


Figure 4. hourly nitrogen dioxide (NO_2) concentrations over the last week for the 6 UKHSA-commissioned monitoring locations

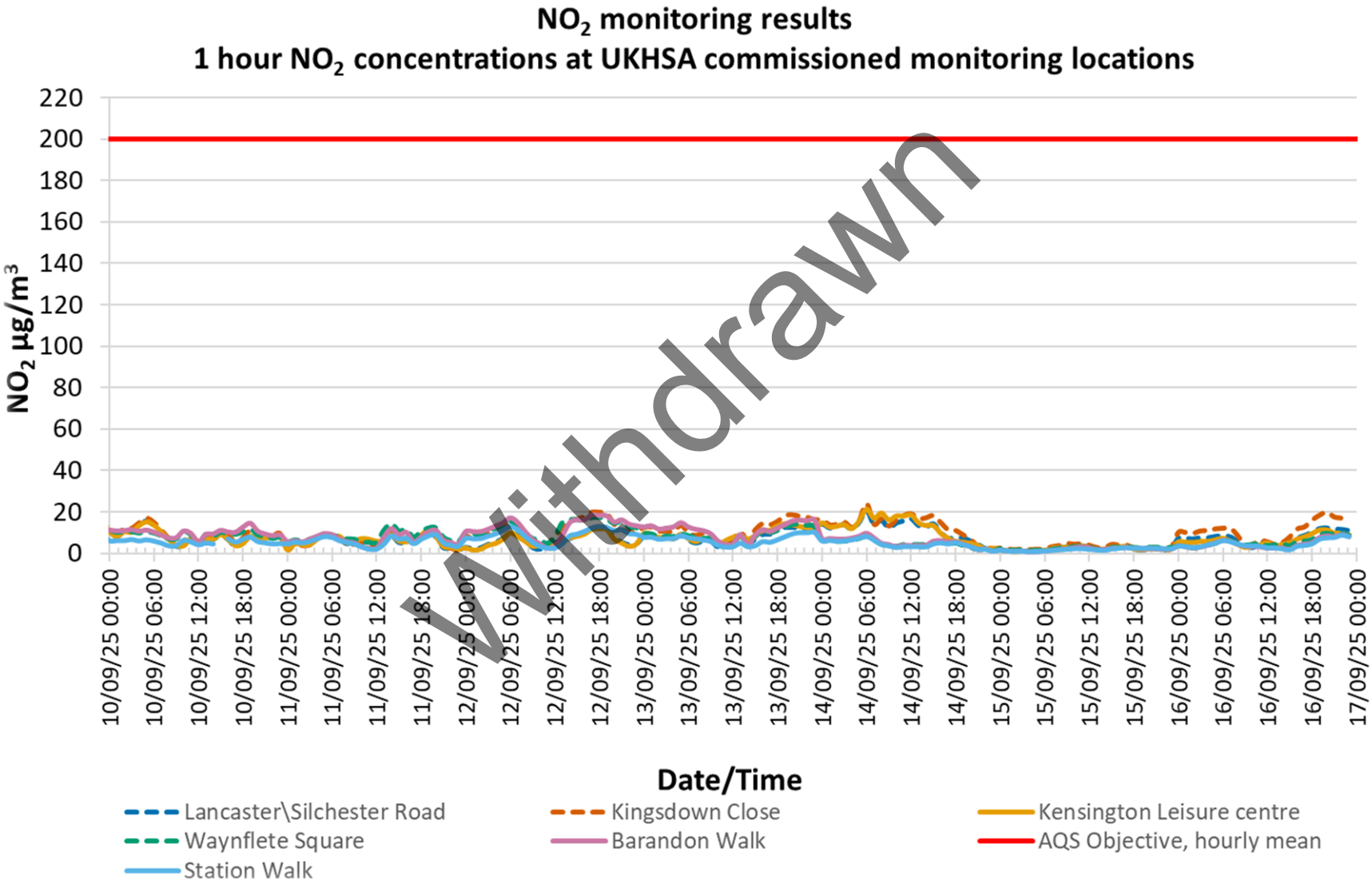
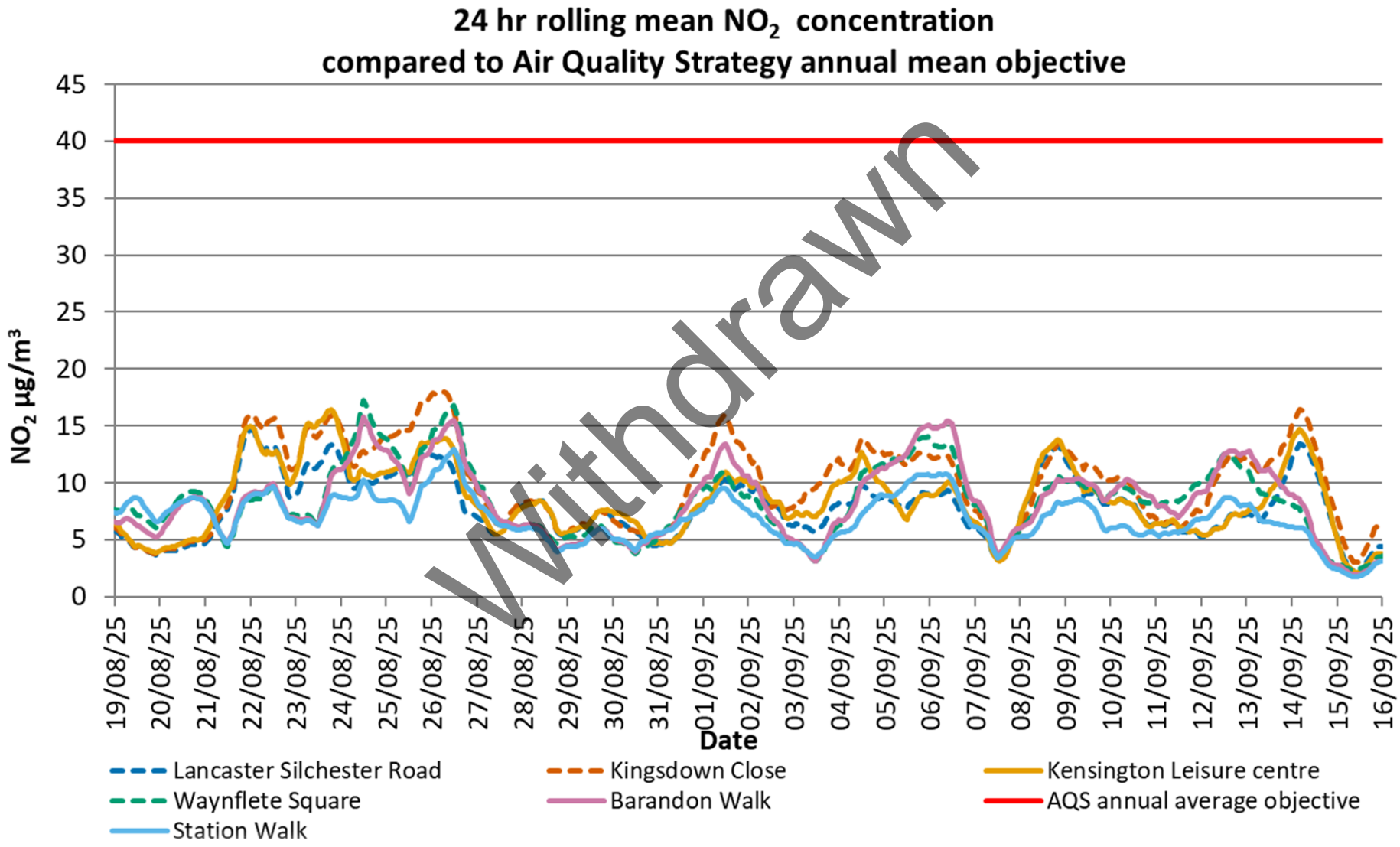


Figure 5. 24-hour rolling average nitrogen dioxide (NO_2) concentrations over the last 4 weeks for each of the 6 UKHSA-commissioned monitoring locations



Asbestos monitoring and results

UKHSA monitoring for asbestos in areas around Grenfell Tower began on the 30 June 2017. Sampling takes place over a 6 to 7 hour window between 7:30am and 4pm when the site is most active. Monitoring locations have moved over time due to site boundary changes and accessibility issues but monitoring locations are within close proximity to the tower (see the map in Figure 1 and Appendix 1 for further details). The time between sampling periods has also increased over time from every 4 days to around 10 to 14 days.

As of the end of March 2024 over 1,800 environmental asbestos monitoring samples have been taken and analysed. The most recent results are shown in the table below and are consistent with the results found since July 2017. To date, environmental asbestos monitoring results indicate levels at or below the limit of detection.

Since monitoring began there have been 6 occasions on which a single asbestos fibre was identified by scanning electron microscopy. This is consistent with environmental background levels of asbestos and does not pose an increased risk to health. Table 3 below, shows the asbestos airborne monitoring results from sample locations for the past 4 sampling dates.

Table 3. Asbestos airborne monitoring results from sample location points for the past 4 sampling dates

Date	Location	Phase contrast microscopy (PCM) f/ml	Scanning electron microscopy (SEM) f/ml	Comments
7 July 2025	Grenfell Road (B3)	<0.004		
	Working Compound (R)	<0.004		
	Kensington Academy (K)	<0.004		
	Grenfell Walk (C2)	<0.004		
	Grenfell Road (B3)	<0.004	<0.001+	No asbestos detected on SEM
	Working Compound (R)	<0.004	<0.001+	No asbestos detected on SEM
	Kensington Academy (K)	<0.004		
	Grenfell Walk (C2)	<0.004		
24 July 2025	Grenfell Road (B3)	<0.004		
	Working Compound (R)	<0.004		
	Grenfell Walk (C2)	<0.004		
	Kensington Academy (K)	<0.004	<0.001+	No asbestos detected on SEM
	Grenfell Road (B3)	<0.004		
	Grenfell Walk (C2)	<0.004		
	Kensington Academy (Q)	Sampling equipment failed – no result available		
	Kensington Academy (J)	<0.004	<0.001+	No asbestos detected on SEM
6 August 2025	Working Compound (R)	<0.004	<0.001+	No asbestos detected on SEM
	Grenfell Walk (C2)	<0.004		
	Kensington Academy (Q)	<0.004		

Date	Location	Phase contrast microscopy (PCM) f/ml	Scanning electron microscopy (SEM) f/ml	Comments
	Kensington Academy (J)	<0.004	<0.001+	No asbestos detected on SEM
	Working Compound (R)	<0.004		
	Grenfell Walk (C2)	<0.004		
	Kensington Academy (Q)	<0.004		
	Kensington Academy (J)	<0.004		
28 August 2025	Working Compound (R)	<0.004	<0.001+	No asbestos detected on SEM
	Grenfell Walk (C2)	<0.004		
	Kensington Academy (Q)	<0.004		
	Working Compound (R)	<0.004		
	Grenfell Road (B3)	<0.004		
	Kensington Academy (Q)	<0.004		
	Kensington Academy (J)	<0.004	<0.001+	No asbestos detected on SEM

+ identifies the limit of detection.
ND = no fibres detected.

The asbestos air sampling is being carried out using some of the methods set out in the Health and Safety Executive's HSG 248. This involves drawing a volume of air across a filter using a pump. The filters are then prepared and analysed in a laboratory.

In the method used by laboratories we have commissioned, the air sample filters are analysed by 2 different methods: phase contrast microscopy and electron microscopy.

Phase contrast microscopy identifies fibres that meet the dimensions of a respirable fibre but does not differentiate between asbestos and non-asbestos fibres. Therefore, we are also analysing a proportion of the samples taken by electron microscopy.

The laboratory analysing the samples uses scanning electronic microscopy. Electron microscopy does differentiate between fibre types, which is why we are able to say with confidence that the fibres identified to date are not asbestos.

For all asbestos monitoring results from 24 June 2017 to 29 December 2021, see the Environmental monitoring following the Grenfell tower fire report dated 29 December 2021.

A summary of the health impacts associated with asbestos fibres is provided in Appendix 2.

Appendix 1. Monitoring locations summary

Particulate matter and nitrogen dioxide

$PM_{2.5}$ and NO_2 air quality sensors are hosted on the Breathe London Communities website, where further information can be found on the exact location, monitoring data and the sensor sponsor. Links to these are listed below.

Sensors commissioned by UKHSA:

- Kensington Leisure Centre
- Barandon Walk
- Kingsdown Close
- Waynflete Square
- Lancaster / Silchester Road
- Station Walk

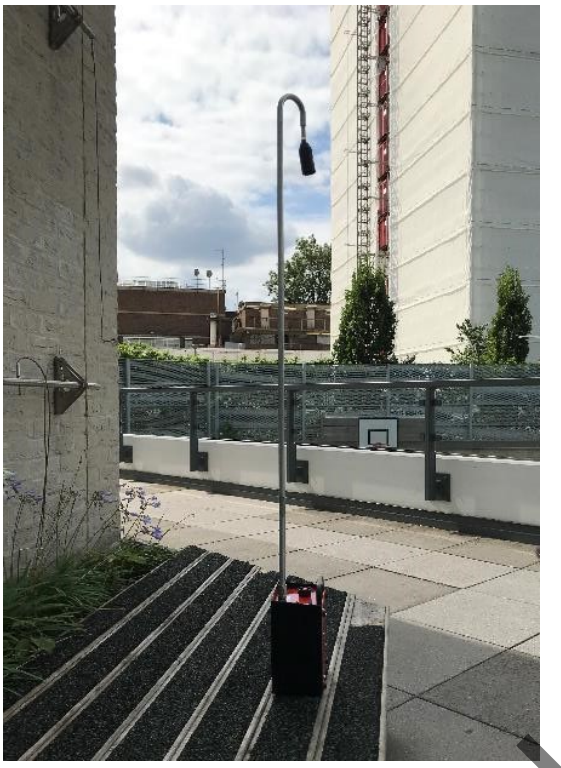
Nearby sensors commissioned by others and reviewed weekly by UKHSA:

- Kensington Aldridge Academy
- Lancaster West Estate
- St Francis of Assisi School

Asbestos

Kensington Academy Monitoring Location Q

During the monitoring period, asbestos monitoring was completed in the Kensington Aldridge Academy grounds (Q) on the mezzanine outdoor area.

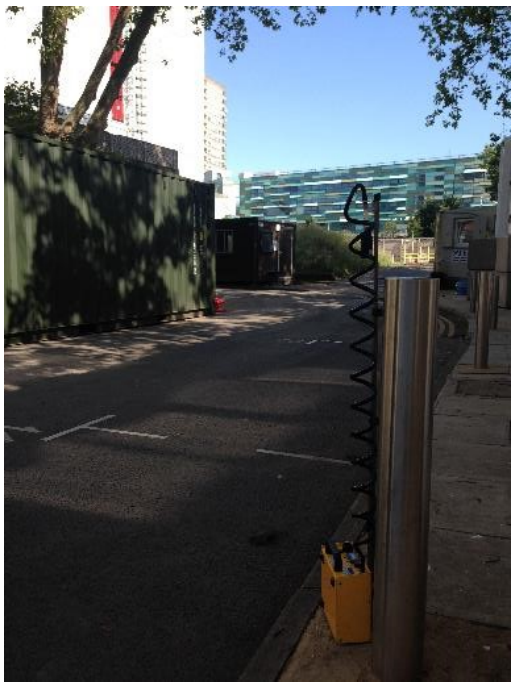


Kensington Academy Monitoring Location K

During the monitoring period, asbestos monitoring was completed along the southern boundary of the Kensington Aldridge Academy playground (K).

Grenfell Road Monitoring location B

The monitoring location is inside the site boundary and has moved as the boundary has changed. During the monitoring period, a location on Grenfell Road (B) near the site entrance was used for asbestos monitoring, as shown in the picture. This monitoring location has been in use since 13 September 2018.

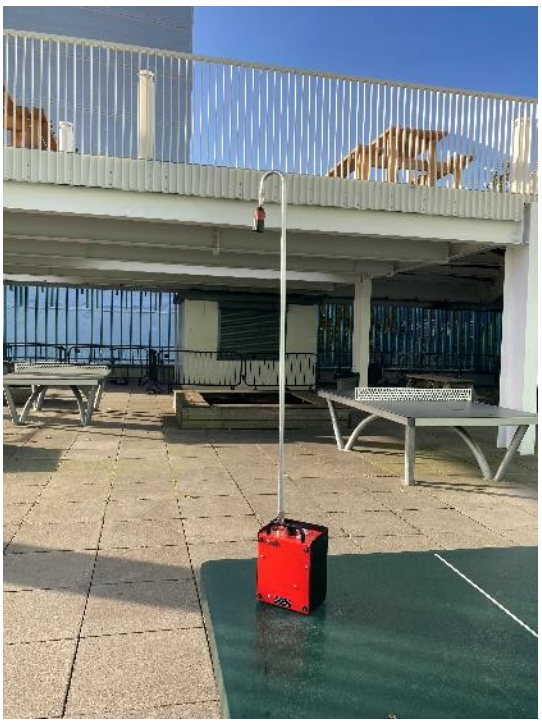


Latimer Road / Grenfell Walk monitoring location C

The Grenfell Walk (C) monitoring location was initially located on the western side of the raised Grenfell Walk but within a month was moved to ground level near the Latimer Road entrance to the site. The picture shows the monitoring location during the current monitoring period. This monitoring location has been in use since 29 July 2017.

Kensington Academy Monitoring Location J

During the monitoring period, asbestos monitoring was completed in the Kensington Aldridge Academy grounds (J) on the first floor outdoor area, as indicated in the picture.



Working Compound Monitoring Location R

During the monitoring period, asbestos monitoring was completed in the Working Compound (R), as indicated in the picture. This monitoring location has been in use since 07 July 2025.

Appendix 2. Health information

Particulate matter

Particulate matter (PM) is a term used to describe the mixture of solid particles and liquid droplets in the air. It can be either human-made or naturally occurring. Some examples include dust, ash, and sea-spray. Particulate matter (including soot) is emitted during combustion, for example from fires, or for power generation, domestic heating and in vehicle engines. Particulate matter varies in size (that is, the diameter or width of the particle). $PM_{2.5}$ means the mass per cubic metre of air of particles with a size (diameter) generally less than 2.5 micrometres (µm). The size of these particles means that they are respirable and can be inhaled into the lungs and enter the bloodstream.

Respirable particulates are chosen as a measure of air pollution and can be compared to background levels across London and against health standards and the Daily Air Quality Index (DAQI). See the Air Information Resource web page for PM_{10} and $PM_{2.5}$.

Nitrogen dioxide

Nitrogen dioxide (NO_2) is a gas that is produced by combustion processes. NO_2 is primarily generated from vehicle emissions, as well as power generation, industrial processes and domestic heating.

NO_2 can be used as an indicator of air pollution and can be compared to background levels across London and against health standards and the Daily Air Quality Index (DAQI). See the Air Information Resource web page.

Health effects of air pollution

Both $PM_{2.5}$ and NO_2 exist in air, and exposure leads to a variety of short-term and long-term health effects. Short-term exposure to air pollution (over hours or days) can lead to health impacts including coughing, chest tightness and pain, eye, nose and throat irritation, difficulty breathing, and worsening of pre-existing conditions such as asthma and chronic obstructive pulmonary disease (COPD). Long-term exposure to air pollution (over years) can increase the risk of getting certain health conditions. The extent of this risk depends on the air composition and length of exposure. Long-term exposure, even on days when levels are low, has been linked to poorer lung function in children, increase in respiratory illnesses, heart disease, stroke, cancer, dementia, diabetes, Alzheimer's and Parkinson's disease, and COPD. Children, the elderly, and those with pre-existing respiratory and cardiovascular disease are known to be more susceptible to the health impacts from air pollution.

Asbestos

Asbestos is a general name given to several naturally occurring fibrous minerals that have crystallised to form fibres. Asbestos fibres do not dissolve in water or evaporate, they are resistant to heat, fire, chemical and biological degradation and are mechanically strong.

The properties of asbestos made it an ideal material for use in a number of products, including insulation material for buildings, boilers and pipes, car brakes and floor tiles, asbestos cement for roofing sheets and pipes.

Asbestos is widespread in the environment. It may enter the atmosphere due to the natural weathering of asbestos-containing ores or damage and breakdown of asbestos-containing products including insulation, car brakes and clutches, ceiling and floor tiles and cement.

The use of asbestos has been banned in the UK since 1999. However, asbestos may be present in any house or building built before the year 2000 as it was widely used in a variety of building materials.

Health effects of asbestos

The presence of asbestos in the environment does not always lead to exposure as you must come into contact with the fibres. When damaged, asbestos can release smaller fibres that may be breathed in or swallowed. Following exposure to asbestos, the possibility of adverse health effects will depend on several factors, including the amount to which you are exposed (dose) and the duration of exposure.

If fibres are inhaled, asbestos may cause cancer of the lung, voice box or ovary, or mesothelioma (a type of cancer that forms on the protective tissue that covers the lungs or the abdomen). The risk of these cancers will depend on how much asbestos you are exposed to and for how long.

Breathing in high concentrations of asbestos for a long period of time mainly affects the lungs, causing a disease called asbestosis where breathing becomes difficult and the heart enlarges. Asbestosis may take decades to develop. Exposure to lower concentrations of asbestos over time may result in a general (diffuse pleural thickening) or localised (pleural plaques) thickening of the lung lining.

Further information

More detailed information on each of these chemicals is available at:

- Particulates
- Nitrogen dioxide
- Asbestos

Other links:

- UK: daily air quality index (DAQI)
- Breathe London Communities
- World Health Organization air quality guidelines
- London Air

About the UK Health Security Agency

UK Health Security Agency (UKHSA) prevents, prepares for and responds to infectious diseases, and environmental hazards, to keep all our communities safe, save lives and protect livelihoods. We provide scientific and operational leadership, working with local, national and international partners to protect the public's health and build the nation's health security capability.

UKHSA is an executive agency, sponsored by the Department of Health and Social Care.

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