

Air Quality around Arnolds Field in August 2023

Air quality data for August 2023 from nodes close to the Arnold's field site as well as sites located further away from Arnolds Field are shown below.

The London Fire Brigade (LFB) were called 21 times to Arnold's Field in August 2023:

- The most recent of these incidents began on 30th August and was closed down on 1st September.
- These incidents range in size/severity from 1 pump attendances and 22 minutes on scene, to multi pump/support vehicle/tactical level Officers and 3059 minutes on scene which occurred on the 30th August.

Date of call	Time of call
06-Aug	20:19
10-Aug	20:22
10-Aug	07:10
13-Aug	12:53
14-Aug	19:52
14-Aug	06:43
16-Aug	04:07
17-Aug	20:21
17-Aug	06:05
20-Aug	06:32
22-Aug	16:39
22-Aug	07:11
23-Aug	09:01
23-Aug	06:17
24-Aug	10:55
25-Aug	01:08
28-Aug	19:21
28-Aug	17:24
28-Aug	08:39
29-Aug	09:48
30-Aug	09:04

The data shows levels of particulates (PM_{2.5}) and Nitrogen Dioxide (NO₂) in residential areas adjacent to Arnolds Field.

In summary, levels of these two pollutants:

- Table 1 shows that NO₂ levels were consistently 'low' when compared to the short term thresholds (hourly mean) set in the UK Government's 'Daily Air Quality Index' (DAQI).
- Table 2 shows that PM_{2.5} levels were consistently 'low' when compared to the short-term thresholds (daily mean) set in the UK Government's 'Daily Air Quality Index' (DAQI) except on the 30th August where levels of PM_{2.5} were 'very high' compared to the DAQI at Ingrebourne Golf Course this aligns with when the most significant fire incident occurred (days with fires are highlighted in red in Table 2).

- Table 3 shows that PM_{2.5} hourly levels were at times 'high' or 'very high' when compared to the Daily Air Quality Index at monitoring sites close to Arnold's Field, these peaks aligned with when there were fires at Arnold's Field except for the 18th which was a regional rise and was not related to the fires as can be seen since Bedfords Park was impacted (10km away from Arnold's Field)
- Orchard Avenue monitoring site didn't go live until 8th August so data is only available from this point onwards.

You can see further information about UK legal limits for [air pollution and guidance from the World Health Organisation \(WHO\)](#).

You can find data from all the nodes around Arnolds Field are shared in more or less real time on the [Breathe London website](#).

Table 1. August 2023 – Nitrogen Dioxide Level (Index) by Node Site (Hourly)

Approx. distance from Arnolds Field	Site Name	
0.5 km N	Acer Avenue	
1 km N	King Edwards Ave	
1.1km W	Orchard Avenue	
1.2 km NW	Rainham (reference site)	
1.2 km	Spring Farm Park	
1.3km W	Harris Academy	
1.8 km	Ingrebourne Golf	
3 km N	Scotts Primary	
3.6 km	Fontayne Avenue	
7 km N	Cotleigh Road	
10 km N	Bedfords Park	

Based on the hourly mean concentration

Table 2. August 2023 - PM2.5 Particles Level (Index) by Node Site (Daily)

Approx. distance from Arnolds Field	Site Name	Date																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
0.5 km N	Acer Avenue	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2
1 km N	King Edwards Ave	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1
1.1km W	Orchard Avenue									1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1
1.2 km NW	Rainham (reference site)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1
1.2 km	Spring Farm Park	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	3	1	2
1.3km W	Harris Academy	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
1.8 km	Ingrebourne Golf	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	3	2	10	1	
3 km N	Scotts Primary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.6 km	Fontain Avenue	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7 km N	Cotleigh Road	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 km N	Bedfords Park	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Based on the daily mean concentration for historical data, latest 24 hour running mean of current day

N.B. dates highlighted in red in Table 2 are when there was a fire at Arnold’s Field.

In the analysis of the PM_{2.5} daily values (Table 2), looking at the values which are not Index 1:

- The 18th was a regional rise and was not related to the fires as can be seen since Bedfords Park was impacted (10km away from Arnold’s Field)
- All other site/days which are not 1, the increase in PM_{2.5} taking it out of index 1 is down to the fires at Arnold’s Field.

PM_{2.5} increases for short periods were seen on other days but were not prolonged enough to elevate the daily index.

Table 3. August 2023 PM2.5 Particles Level (Index) by Node Site (Hourly)

Legend		PM2.5 - 1 hour mean (mg/m3)																												
0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300

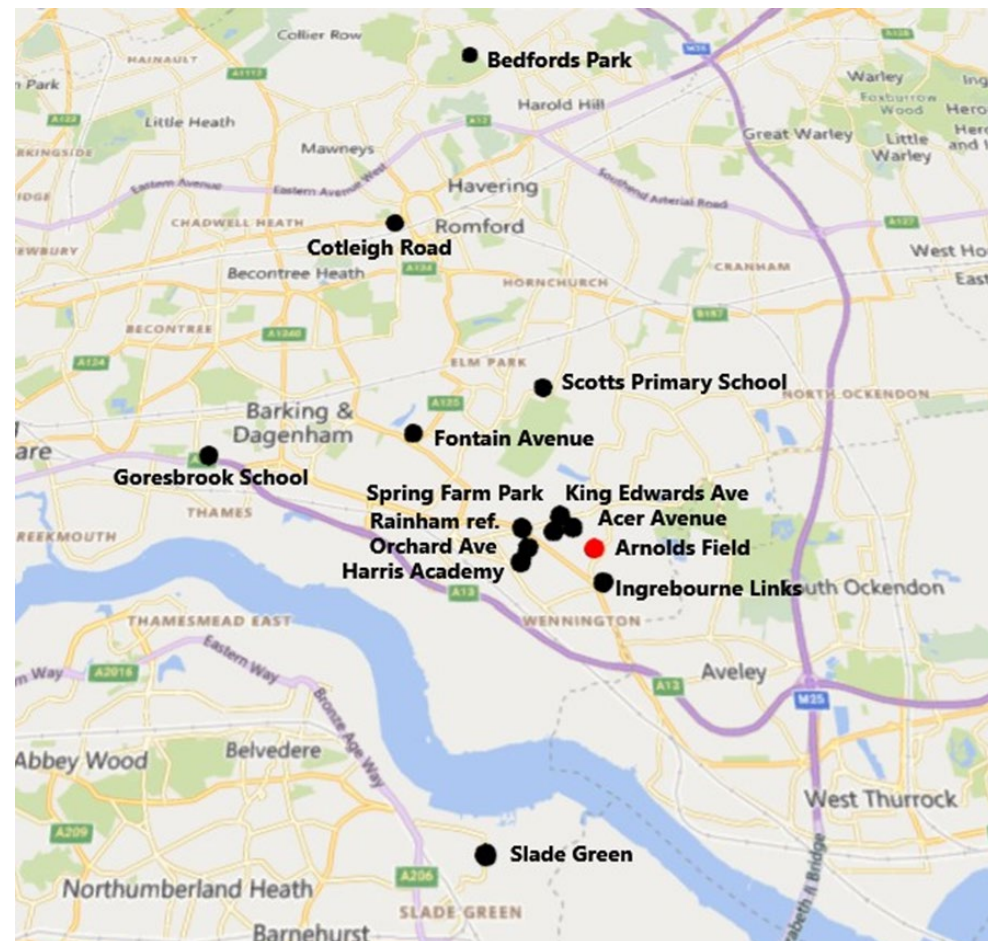
Approx. distance from Arnolds Field	Site Name	01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug
0.5 km N	Acer Avenue	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
1 km N	King Edwards Ave	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
1.1km W	Orchard Avenue	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White
1.2 km NW	Rainham (reference site)	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
1.2 km	Spring Farm Park	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
1.3km W	Harris Academy	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
1.8 km	Ingrebourne Golf	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
3 km N	Scotts Primary	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
3 km	Slade Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
3.6 km	Fontain Avenue	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
6.5km W	Goresbrook School	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
7 km N	Cotleigh Road	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	
10 km N	Bedfords Park	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	

Based on the hourly mean concentration

The reference stations and Breathe London Nodes on the homepage map are coloured in Table 1 and Table 2 according to the government's 'Daily Air Quality Index' (DAQI) shown below.

You can find the DAQI on the [Defra website](#)

Band	Index	PM2.5 (24 hour mean mg/m3)	Nitrogen dioxide (1 hour mean mg/m3)
Low	1	0-11	0-66
	2	12-23	67-133
	3	24-35	134-200
Moderate	4	36-41	201-267
	5	42-46	268-334
	6	47-53	335-400
High	7	54-58	401-467
	8	59-64	468-534
	9	65-70	535-600
Very High	10	>71	>601



- Arnolds Field (Launders Lane)
- Breathe London air quality monitors