

Air Quality and Dust Monitoring Monthly Report – June 2024

Birmingham City Council



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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Monthly Summary

- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken within Birmingham City Council (BCC) during June 2024.
- 1.1.2 Figure 1 to Figure 3 in Appendix A present the current worksites together with the dust monitoring locations.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report monthly available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current worksites, as presented in Appendix A, Figure 1 to Figure 3, include:

Sublot 4

Washwood Heath

- Excavation and compaction works associated with the construction of the brook.

Curzon Street

- Reinforced concrete piers + deck.
- Fabrication of steel deck.
- Concrete pours.
- Traffic on main site haul road.
- Tarmac batching plant operations.
- Delivery wagons.
- Aggregate delivery.
- Operating plant.
- Concrete wagons.
- Site welding tripods.
- Formwork.
- Falsework erection.
- Deck finishing works.
- Drainage works.

Bromford East Tunnel Portal (Sublot 1B)

- Operation of Tunnel Boring Machine (TBM) 1&2.
- Maintenance of TBM 1&2.
- Operation of Slurry Treatment Plant (STP) 1&2.
- Maintenance of STP 1&2.

- 24-hour muck transportation to Sublot Delta.
- Form work for the Mechanical, Electrical and Plumbing (MEP) building.
- Deliveries from Heavy Good Vehicles (HGV's) dropping of segments.
- 6 difference cranes in operation.
- Steel fixing in SP3 roof.
- Installation for north side sump side.
- Base plate installation.
- Rails installation for north side.
- Grouting sump side north.
- Installing shutter.
- Excavation of the sump areas 1&2.

Curzon Street Station – Pre-main works

- Stripping of weathering layer
- Pile matt construction
- Installation of temporary haul road.

1.1.5 Eight (8) dust monitors are installed around these worksites, where works are underway. These sites returned a medium dust risk rating.

1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 2, together with line charts of monthly data from each dust monitor, presented in Figure 4. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.

1.1.7 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (October 2018)*' has been applied.

1.1.8 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 3.

1.1.9 Data capture was below 90% for the WHD003 monitor due to an issue with the monitor and power supply issues which was resolved by the full dust work up done on the monitor on 25th June 2024.

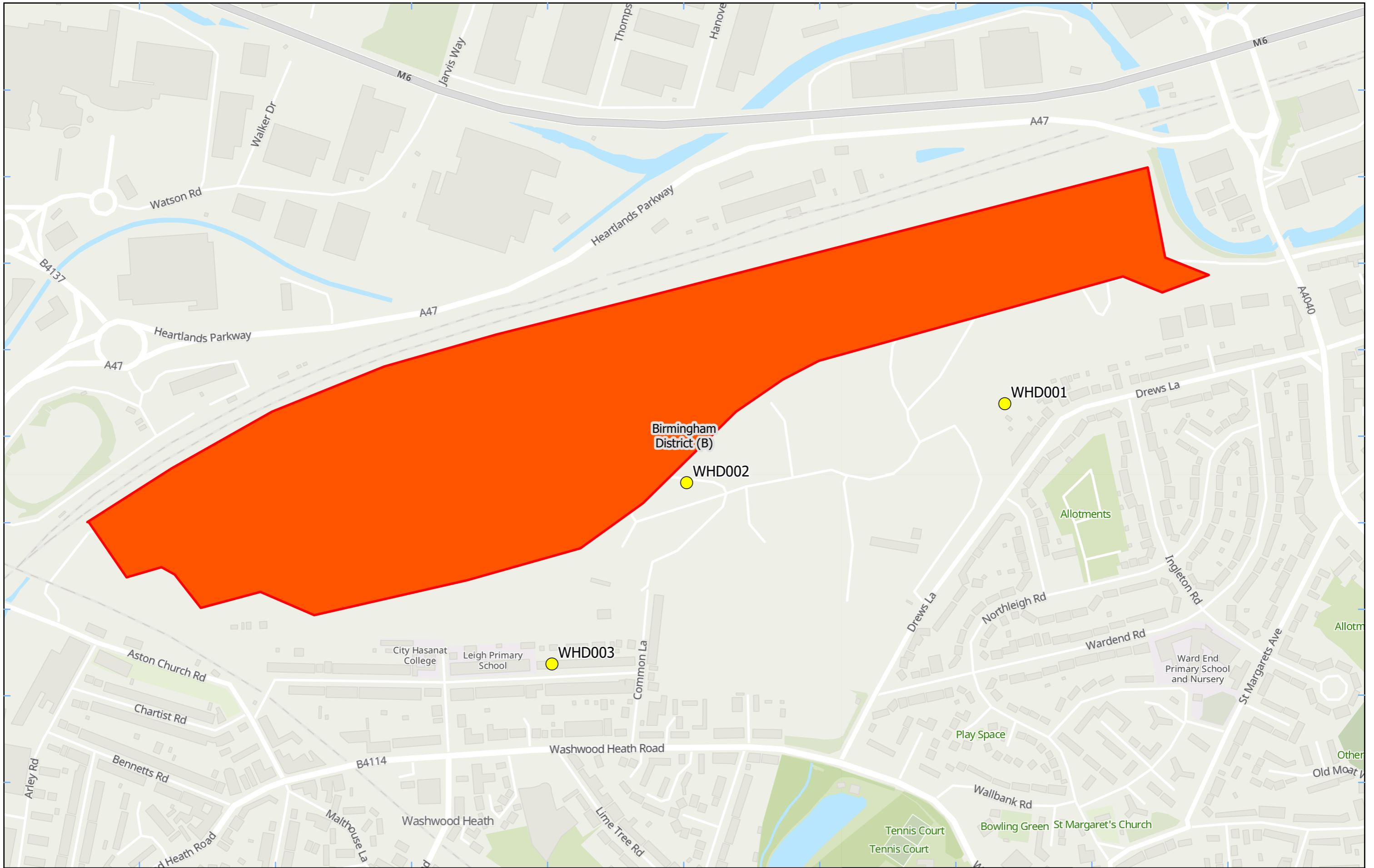
1.1.10 Table 1 provides a summary of the complaint information relating to dust or air quality received during the reporting period, together with the findings of any related investigations.

Table 1: Summary of complaints received during June 2024

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-24-45490-C	N/A	Level of dust in property.	Dust levels on site have been measured and there have been no exceedances over any 24 hour period in May and/or June. Frequency of dust suppression measures on site will, however, be increased. Confirmation of this provided to resident, along with providing information on HS2's Special Cases process.
HS2-24-45493-C	N/A	Dust and noise levels.	Dust levels on site have been measured and there have been no exceedances over any 24 hour period in May and/or June. Frequency of dust suppression measures on site will, however, be increased. Confirmation of this provided to resident, along with providing information on HS2's Special Cases process.

Appendix A – Worksites and Monitoring Locations

Figures 1 - 3: Worksites and Monitoring Locations within BCC



Legend
 [Red outline] District Borough Unitary Boundaries [Red fill] Worksite
 [Yellow dot] Dust Monitor

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet 1)**
 Birmingham City Council

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Legend
 [---] District Borough Unitary Boundaries [Red Box] Worksite
 [Yellow Dot] Dust Monitor

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Map Number
 Map Name
**Worksite and Monitoring Locations
 In BCC (Sheet 2)**
 Birmingham City Council

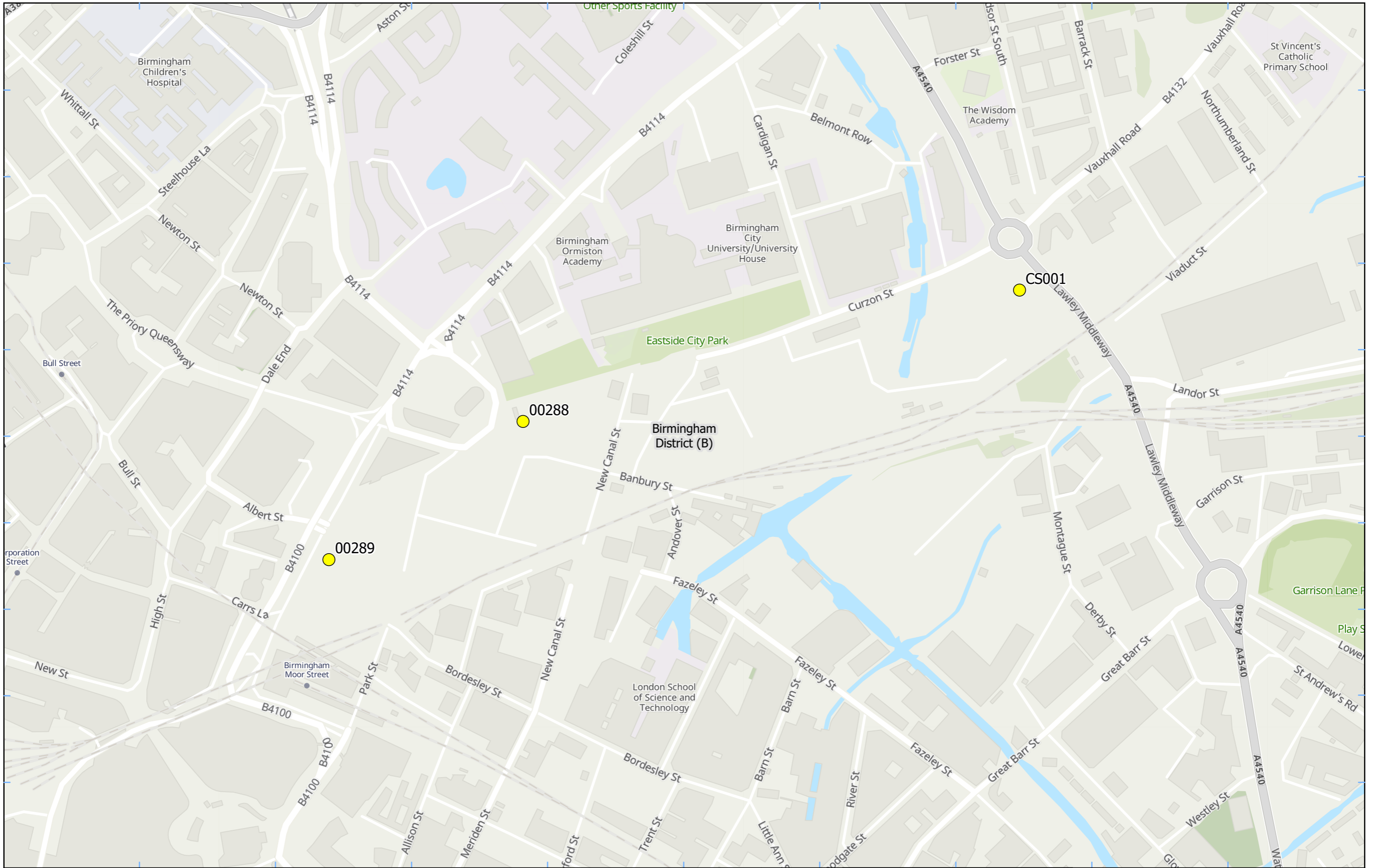
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Legend
 Dust Monitor
 District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In BCC (Sheet 3)**
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Appendix B – Dust Monitoring Results

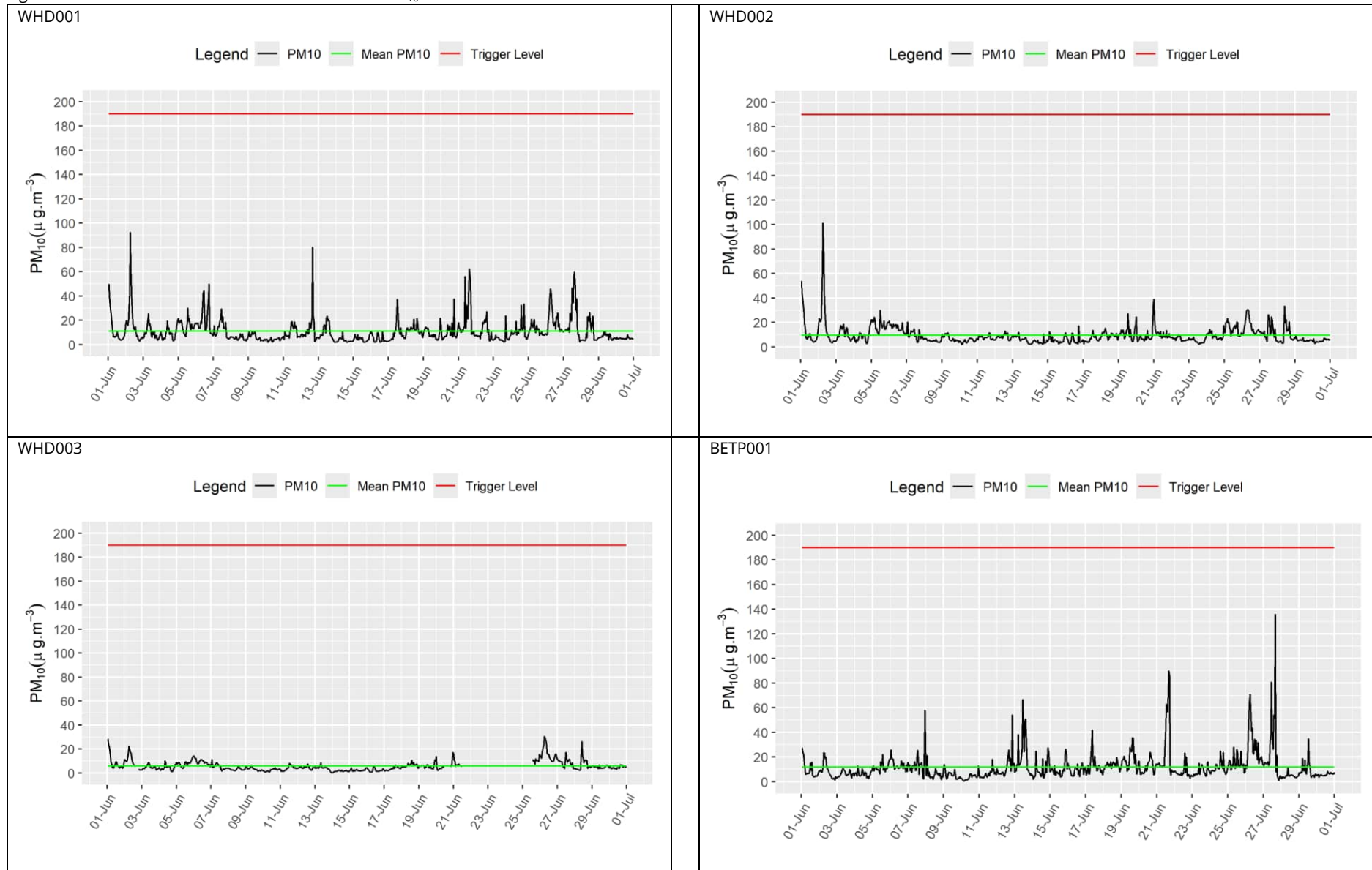
Table 2: Dust Monitoring Locations and Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
WHD001	411221, 289245	Washwood Heath Depot, near receptors on Drews Lane	M	Yes	No	10.9	1.9	92.4	0	100.0
WHD002	410758, 289130	Washwood Heath Depot, near receptors on Common Lane	M	Yes	No	9.5	1.8	101.2	0	100.0
WHD003	410562, 288866	Washwood Heath Depot, near receptors on Warren Road	M	Yes	No	5.7	0.2	30.4	0	84.9
BETP001	416719, 290767	Bromford East Tunnel Portal, Twisted Oak Stables	L	Yes	No	11.8	0.3	135.8	0	100.0
BETP002	417406, 290605	Bromford East Tunnel Portal, Attleboro Lane	M	Yes	No	7.8	0.7	35.9	0	100.0
00288	407676, 287057	Curzon St – East Side City Park	M	Yes	No	8.4	0.1	105.6	0	93.6
00289	407450, 286896	Curzon St – Moor St Queensway	M	Yes	No	11.1	1.0	236.6	1	99.2
CS001	408254, 287210	University Locks, Curzon Street	M	Yes	No	2.0	0.1	32.8	0	97.5

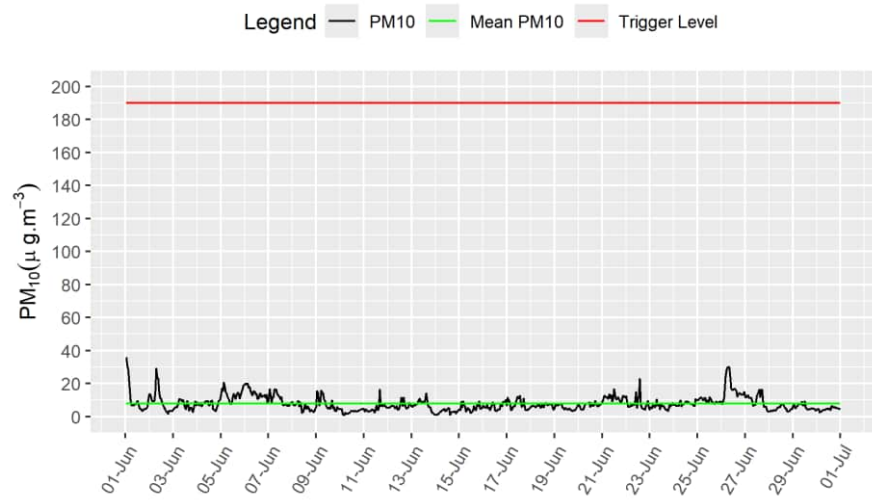
Table 3: Summary of exceedances during period (June 2024)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
00289	19/06/2024 14:01 - 15:00; 236.6 µg/m ³	At the time of the trigger no significant dust visible on site and dust management controls were in operation (dust cannons and bowsers on haul roads).	Controls already in place to manage dust on site during warm weather.

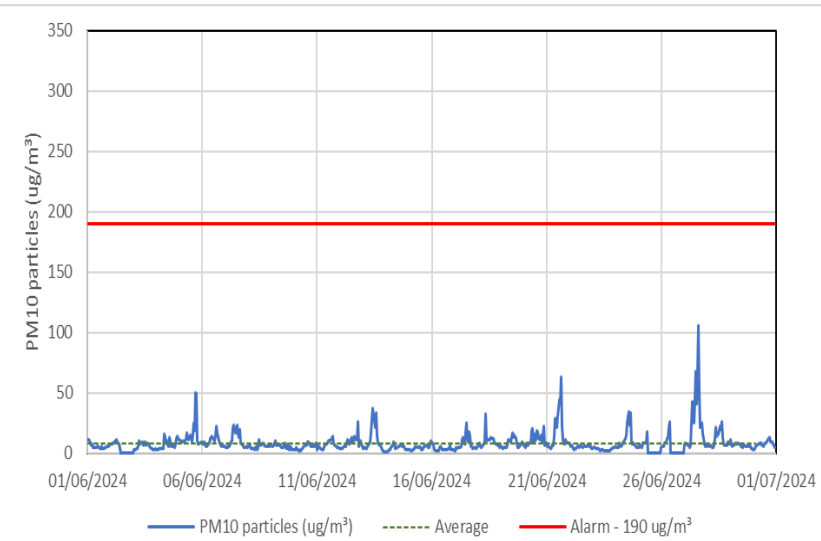
Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



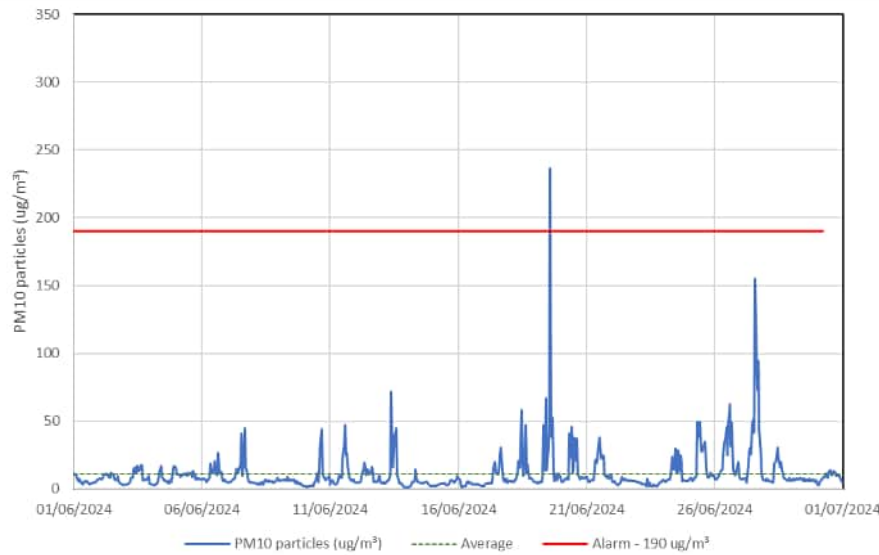
BETP002



00288



00289



CS001

