

## **Air Quality and Dust Monitoring Monthly Report – September 2023** **Solihull Metropolitan Borough 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 air quality and dust monitoring undertaken in Solihull Metropolitan Borough Council (SMBC) during September 2023.
- 1.1.2 Figures 1 to Figure 3 in Appendix A indicate 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](http://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 2B3**

### Balsall Common Viaduct

- Haul Road Traffic/ Use of vibratory rollers
- Truggist Lane traffic

### Park Lane

- Material stockpile and reload/moving plants.
- Collins Earthworks/Moving Traffic.
- M215 footbridge construction – Rollers and diggers.

### A452 Compound

- Piling rig/A452 Embankment works

## **Sublot 5S**

### Coleshill Heath Road Underbridge

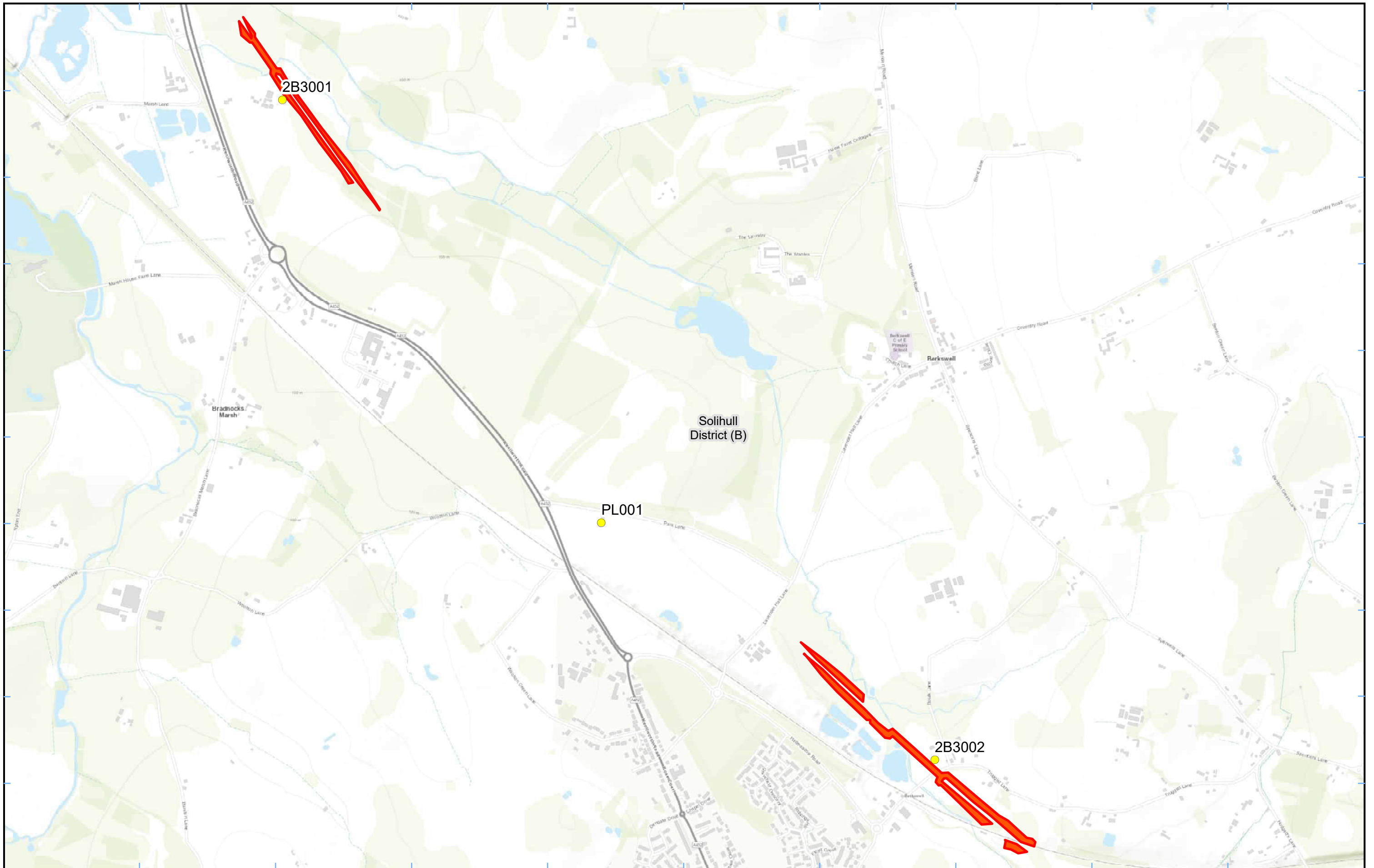
- Striking formwork & Blackjacking;
- Pile caps;
- Anchor piles;
- Piling;
- Pile cropping;
- Wheelwash slab construction;
- Removal of redundant gantry foundations & complete piling platform;

- Excavation;
- Stability towers; and
- Topsoil stripping.

- 1.1.5 Seven (7) dust monitors are installed at 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 1, together with line charts of monthly data from the dust monitors 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 mitigations.
- 1.1.7 The trigger level for PM<sub>10</sub> concentrations of 190 µg/m<sup>3</sup>, 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 Dust trigger alerts were recorded during the monitoring period (September 2023) and are reported in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for 2B3002 due to the monitor being swapped out for investigation on 12<sup>th</sup> September 2023 due to an issue with the monitor.
- 1.1.10 A new monitor was installed at Hollywell Brook (BIS001) on 21<sup>st</sup> September 2023.
- 1.1.11 There were no (0) complaints received during this reporting period (September 2023).

# Appendix A – Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within SMBC



**Legend**  
 Dust Monitor District Borough Unitary Boundaries  
 Worksite

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Map Number  
 Map Name  
**Worksite and Monitoring Locations  
 In SMBC (Sheet 1)**  
 Solihull Metropolitan Borough

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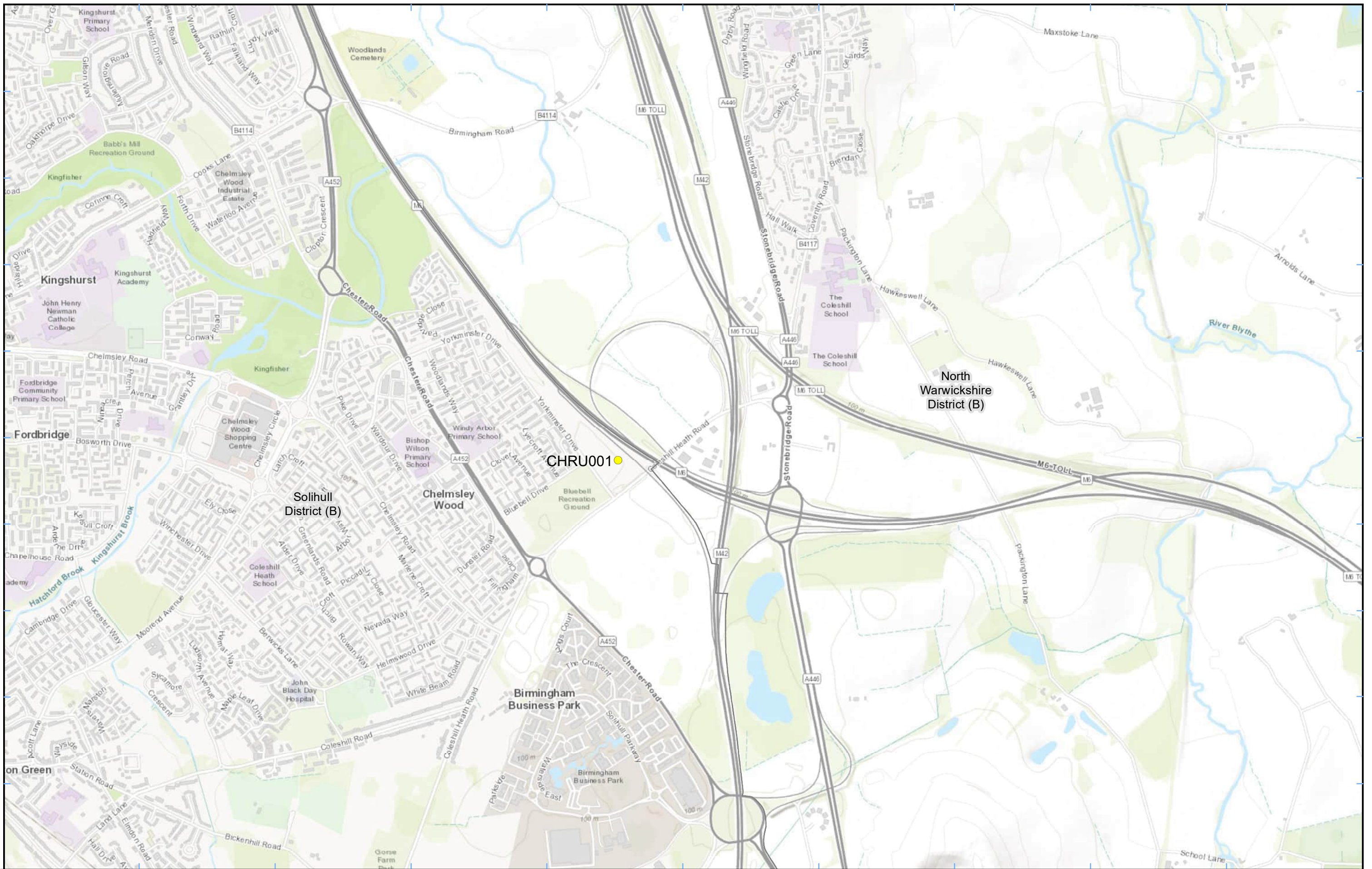
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**Legend**  
 ● Dust  
 □ District Borough Unitary Boundaries

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Map Number  
 Map Name  
**Monitoring Locations  
 In SMBC (Sheet 2)**  
 Solihull Metropolitan Borough

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0 140 280 420 560 Metres

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**Legend**

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name  
**Monitoring Locations  
In SMBC (Sheet 3)**

**Solihull Metropolitan Borough**

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Metres

**Doc Number:** **Date: 09/11/23**



## Appendix B – Dust Monitoring Results

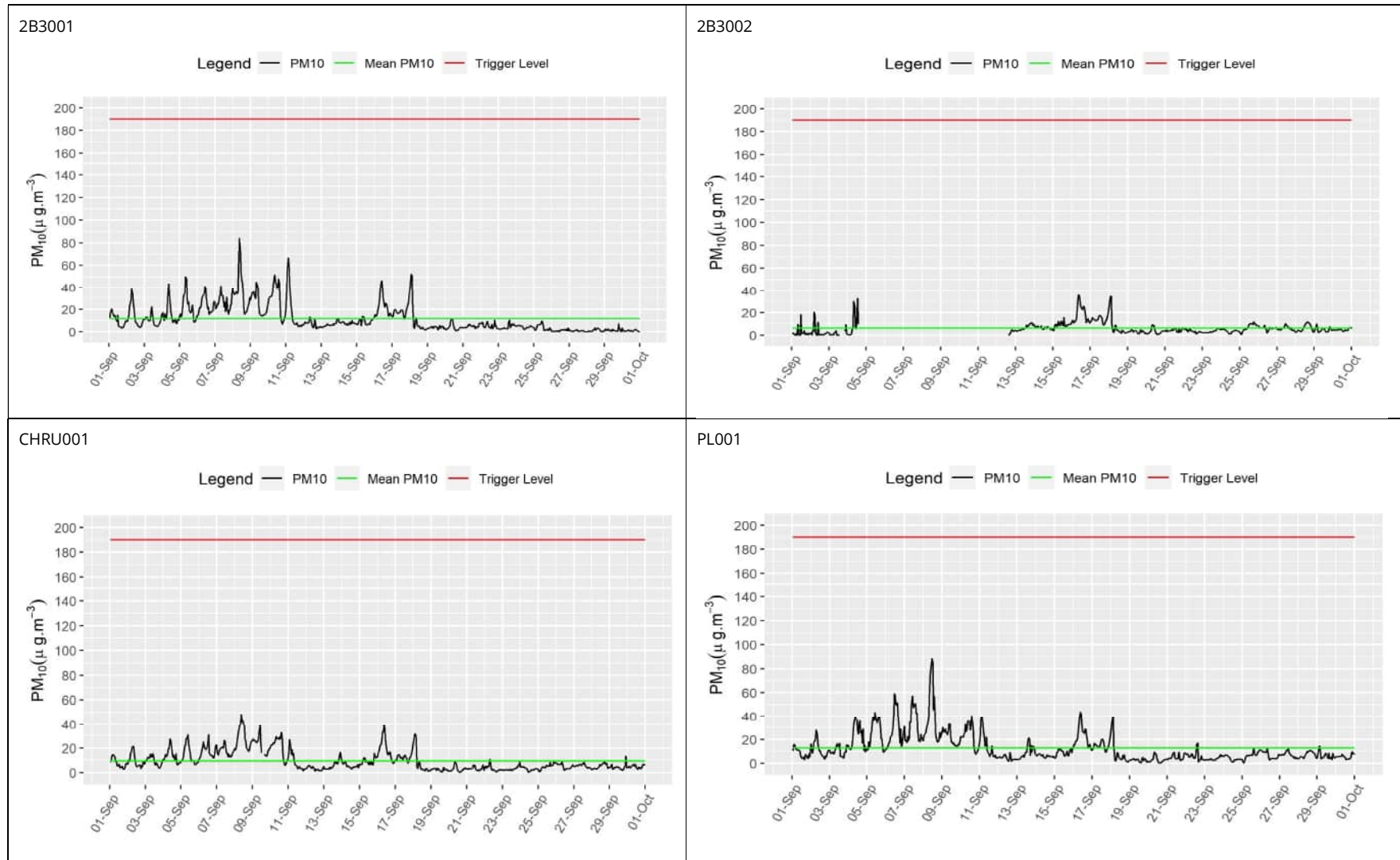
Table 1: Dust Monitoring Locations and September 2023 Results

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 <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1-hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture Month (%)
2B3001	422322, 280034	Sublot 2B3, at Marsh Farm	M	Yes	No	11.7	0.1	83.9	0	99.9
2B3002	424601, 277729	Sublot 2B3, at Cherry Tree Cottage	M	Yes	No	6.2	0.1	35.6	0	72.6
CHRU001	419300, 286793	Bluebell Drive, Coleshill Heath Road Underbridge	M	Yes	No	9.4	0.2	48.1	0	99.6
PL001	423436, 278557	Park Lane	M	Yes	No	12.6	0.2	88.5	0	100.0
DLE001	421035, 281818	Diddington Lane	M	Yes	No	10.1	0.2	220.0	1	100.0
DLE002	421139, 282222	Hampton Hill Farmhouse	M	Yes	No	9.9	0.1	55.2	0	100.0
BIS001	420284, 283503	Hollywell Brook	M	Yes	No	4.9	0.5	15.1	0	31.5

Table 2: Summary of exceedances of trigger level in September 2023

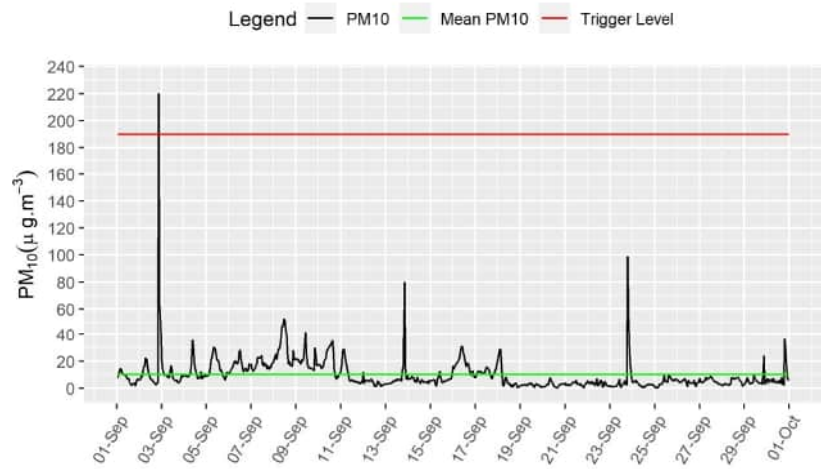
Monitoring site ID	Period exceeding trigger level	Investigation	Outcomes / Resolution / Remedial measures implemented
DLE001	02/09/2023 20:00 – 20:59; 220.0 µg/m <sup>3</sup>	The alert was recorded during a period that was outside of BBV construction hours therefore the exceedance is not associated with HS2 construction works.	N/A

Figure 4: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for all dust monitors

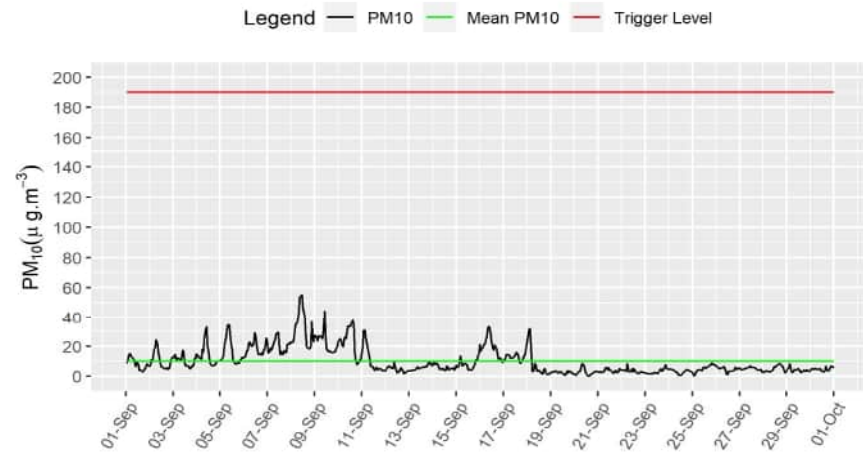




DLE001



DLE002



BIS001

