

Air Quality and Dust Monitoring Monthly Report - December 2024

Warwick District Council



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 within Warwick District Council (WDC) during December 2024.
- 1.1.2 Figures 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, Figures 1 to 3, include:

Sublot 2A2

Fosse Way Main - Long Itchington Road

- Operation of Roadhead at Fosse Way Compound.
- Temporary works platforms and bulk excavation by earthworks for Greenway Green Bridge.
- Base (abutment AB0) reinforcement, formwork and concrete to Offchurch Green Bridge.
- Base (abutment Pier 1 and Pier P2) reinforcement and formwork.
- Reinforcement to Pier 2 and concrete to pier at Fosse Way Overbridge.
- Reinforcement, formwork and concrete to Abutment / Wingwall AB4 at Fosse Way Overbridge.
- Reinforcement, formwork to Wingwalls AB0 at Fosse Way Overbridge.
- Concrete finishing and remedials to Abutments and concreting of bearing base plates at Fosse Way Overbridge.
- Trial holes and ecological and topo surveys around Welsh Road crossroads for new underpass.
- Maintenance of haul roads and footpaths around Fosse Way Overbridge.
- Fosse Way Overbridge Rid up 650 tonne crane.
- Fosse Way Overbridge Installation of beams and edge protection/scaffold.

Stoneleigh Park- East Lodge

- Mobilisation of satellite compounds.
- Installation of site access points & plant crossings.

- Installation of temporary drainage.
- Haul route construction.
- Excavation of flood compensation area.
- Contestable utility diversions, removal and protection.
- General site duties.
- Installation of temporary fencing including hoardings.
- Earthworks.
- Structures.
- Bentonite batching plant.

Cubbington Compound Worksite

- Formwork and false work installation.
- Concrete pour.
- · Housekeeping.
- V-ditch cleaning.
- Earthworks stockpile movements.
- Overbridge creation.

Burton Green Tunnel (Sublot 2B2)

- Tunnel excavation.
- Steel fixing works.

Welsh Road Underbridge Satellite Compound (Sublot 2AS)

Offchurch Cutting - Welsh Road Farm

- Formwork and false work installation.
- Concrete pour.
- · Housekeeping.
- V-ditch cleaning.
- Strimming.

Offchurch Cutting – Valley Fields

- Installation of permanent drainage pipes and manholes at River Leam Embankment.
- Bulk earthworks to River Leam Embankment area.
- Dig and replace and soil stabilisation to Ash Beds cutting.
- Excavation of crane platforms to W129y footbridge.
- Backfill and testing works to new sewer (Severn Trent) north of Hunningham Road.
- Hunningham Road Overbridge beam installation and commencement of deck edge protection and formwork.
- Hunningham Road Vegetation clearance.
- Hunningham Road Duct installation for utility BT diversion along road verge.

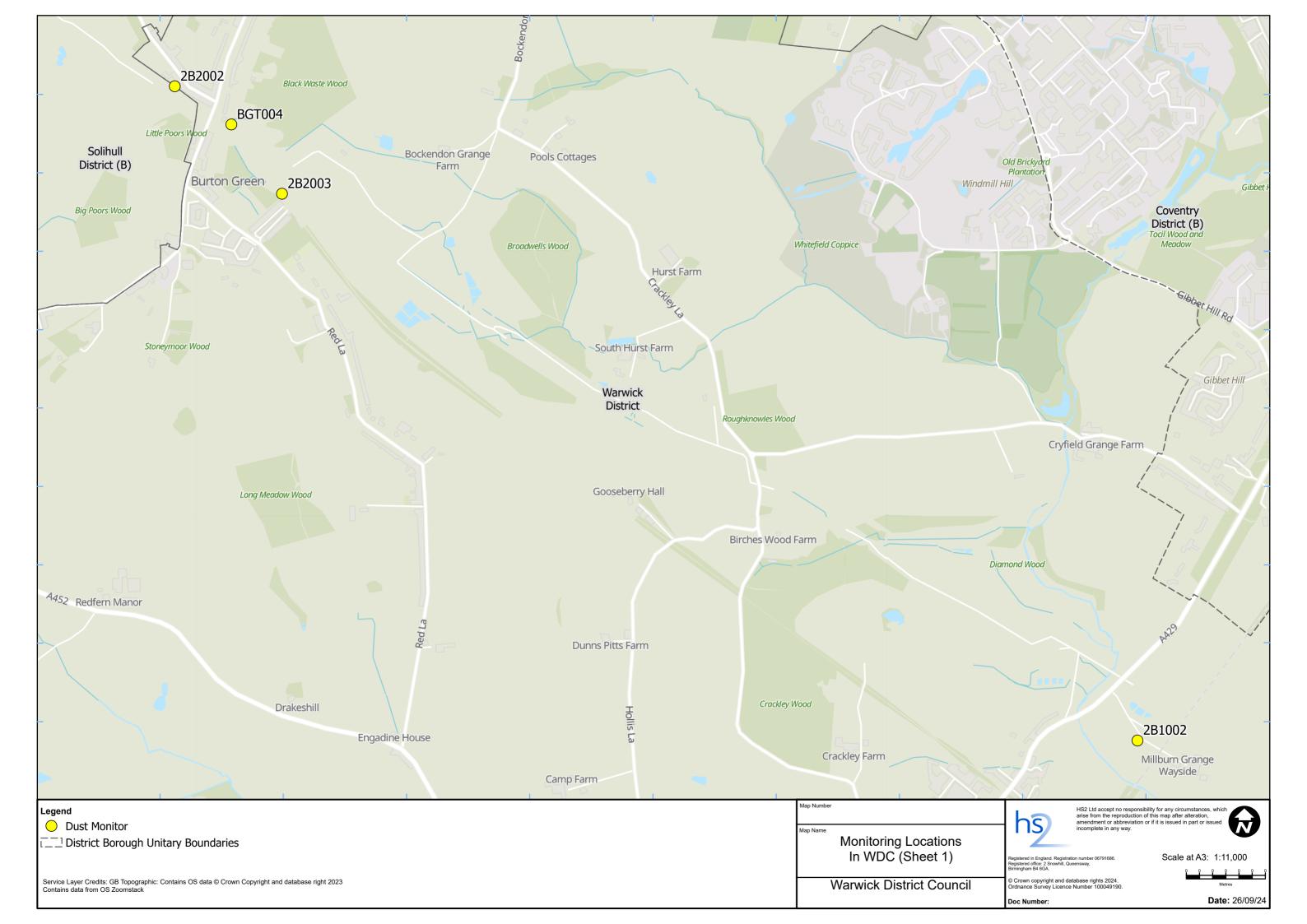
A429 Kenilworth Road Overbridge (Sublot 2B1)

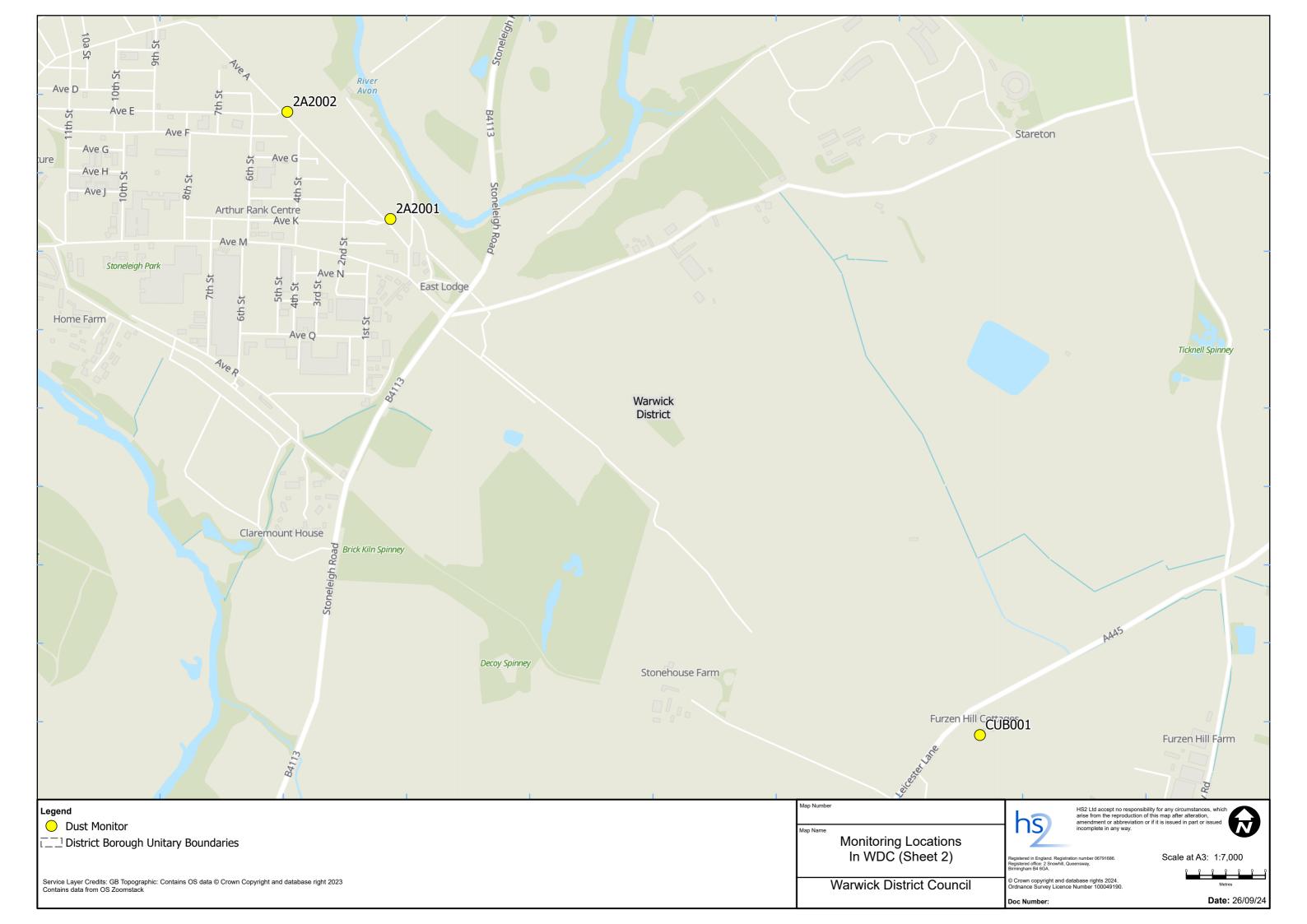
- Road and drainage works for Millburn Grange Overbridge.
- Structure works for Millburn Grange Overbridge.
- A429 Technical backfill.
- 1.1.5 Eleven (11) dust monitors are installed around these worksites, where works are underway. These sites returned a low to medium dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from 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 PM_{10} concentrations of 190 μ g/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 No (0) dust trigger alerts were recorded during the monitoring period (December 2024).
- 1.1.9 Data capture was below 90% for multiple monitors due to:
 - Monitor 2A2002 A field calibration and battery refresh was done on 11th December 2024. Another battery refresh is scheduled for 16th January 2025.
 - Monitor 2AS001 A field calibration was done on 2nd December 2024. The status of this monitor is to be revisited, and a site visit is to be scheduled (if necessary).
 - Monitor 2B2002 A battery refresh and field calibration was done on 16th December 2024. Another battery refresh was done on 7th January 2025. After these site visits, the power supply issues were resolved.
 - Monitor 2B2003 A field calibration was done on 9th December 2024. A battery refresh is scheduled for 14th January 2025.
 - Monitor BGT004 A battery refresh was done on 4th December 2024, and a field calibration was done on 16th December 2024. The status of this monitor is to be revisited, and a site visit is to be scheduled (if necessary).
 - Monitor CUB001 A full calibration and battery refresh were done on 7th January 2025, and a monitor move is scheduled for 16th January 2025. After the calibration and battery refresh, the power supply issues were resolved.
 - Monitor FOS001 A battery refresh is scheduled for 16th January 2025.
 - Monitor FOS002 A battery refresh is scheduled for 16th January 2025.

- Monitor 2A2001 A monitor swap out and field calibration were done on 11th December 2024. A battery refresh and another monitor swap out are scheduled for 16th January 2025.
- Monitor 2B1002 A full calibration and battery refresh were done on 9th December 2024. Another battery refresh was done on 7th January 2025. After these site visits, the monitor issues were resolved.
- Monitor OC001 A monitor swap out is scheduled for 16th January 2025.
- 1.1.10 There were no (0) complaints received during the reporting period (December 2024).

Appendix A - Worksites and Monitoring Locations

Figures 1-3: Worksites and Monitoring Locations within WDC







Appendix B - Dust Monitoring Results

Table 1: 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/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
2A2001	432797, 271427	East Lodge, Stoneleigh Park	М	Yes	No	12.6	0.1	35.1	0	4.4
2A2002	432566, 271671	East Lodge, Stoneleigh Park	М	Yes	No	-	-	-	0	-
2B2002	426768, 276023	Sublot 2B2, at nearest sensitive receptor on Hodgetts Lane	М	Yes	No	4.6	0.1	26.1	0	70.0
2B2003	427135, 275649	Sublot 2B2, at Broadwell Woods Caravan Park	М	Yes	No	3.6	0.1	21.6	0	53.5
2B1002	430371, 273678	Sublot 2B1, at Brookview Farm, Millburn Grange	М	Yes	No	-	-	-	0	-
2AS001	437593, 264527	Sublot 2AS, at Welsh Road Farm	М	Yes	No	4.3	0.1	33.2	0	89.7
OC001	437205, 265256	Springhill Cottages, Offchurch Cutting	М	Yes	No	4.2	0.1	24.0	0	73.4
CUB001	434124, 270273	Sublot 2A2, at Furzon Hill Cottages	L	Yes	No	-	-	-	0	-
FOS001	436912, 265643	Fosse Way Compound, on Long Itchington Road	М	Yes	No	3.7	0.1	16.0	0	28.5
FOS002	436506, 266235	Valley Fields, Fosse Way Main	М	Yes	No	4.3	0.1	16.4	0	18.4
BGT004	426983, 275858	301 Cromwell Lane, Burton Green	М	Yes	No	10.7	0.1	117.7	0	53.0

Figure 4: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors 2A2001 2A2002 Legend — PM10 — Mean PM10 — Trigger Level Legend — PM10 — Mean PM10 — Trigger Level 200 -200 -180 -180 -160 -160 -- 140 - 120 - 100 - 80 - 60 - 60 - 100 - 140 - $PM_{10}(\mu\,g.m^{-3})$ 120 -100 -80 -60 -60 -40 -40 -20 -20 -0 -17.0°C -- 2002> - 080. 13.08c -15.00c 1,000 19.0°C - 230se --350s-100. 100. 2B2002 2B2003 Legend — PM10 — Mean PM10 — Trigger Level Legend — PM10 — Mean PM10 — Trigger Level 200 -200 -180 -180 -160 -160 -PM₁₀(μg·m₋₃) 120 -80 -60 -140 - $PM_{10}(\mu g.m^{-3})$ 120 -80 -60 -60 -40 -40 -20 -20 -

17.00c -

1,20°.

150g-

