HS2

January 2024

Air Quality and Dust Monitoring Monthly Report – January 2024

Three Rivers District Council

gov.uk/hs2

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 in the Three Rivers District Council (TRDC) during January 2024.

1.1.2 Figure 1 in Appendix A presents the current worksite together with the dust monitoring locations.

1.1.3 This summary should be read in conjunction with the overview monitoring report 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, include:

South Portal site (Phase 8)

- General Plant: wheel washers, generators and site-wide support plant;
- Earthworks and Drainage: soil strip, excavation, filling, subgrade and ground stabilisation;
- Civils: platforms, accommodation and slabs;
- I&M Installation: site-wide;
- Stockpiling: INNS stockpile management and storage of excavated materials from CVV pile arisings and vent shaft sites in SP10 and West Hyde Embankment;
- Site Wide Fencing-Phase D & F Fencing and STP Acid Storage Fencing;
- Batching Plant 1, 2 and 3: collection of concrete for activity at vent shaft sites and batching plant 1, 2 & 3 - deliveries and operation;
- Tunnel Precast Factory: factory NB2 production and factory NB1 production (First Half of January only);
- Viaduct Precast Factory;
- Western Valley Slope Cake Placement: earthworks chalk cake placement;
- Tunnelling Works (Surface Support);
- CVV Jetty Pre-Cast Yard Operation;
- Concrete Breaking Activities;
- Pugmill Plant Operation;
- South Portal Civils Works: permanent works and porous works;
- Surface Water Management;
- CVV Formwork Assembly;
- Road and Hardstanding: surfacing, grading and excavation;
- CVV Bridge Parapet Mock-up Works; and
- Landscaping Works: planting and fencing.

1.1.5 Four (4) dust monitors are installed around this worksite, 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 each dust monitor, presented in Figure 2. 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 µg/m^3, measured as a 1-hour mean, in accordance with the updated IAQM guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.

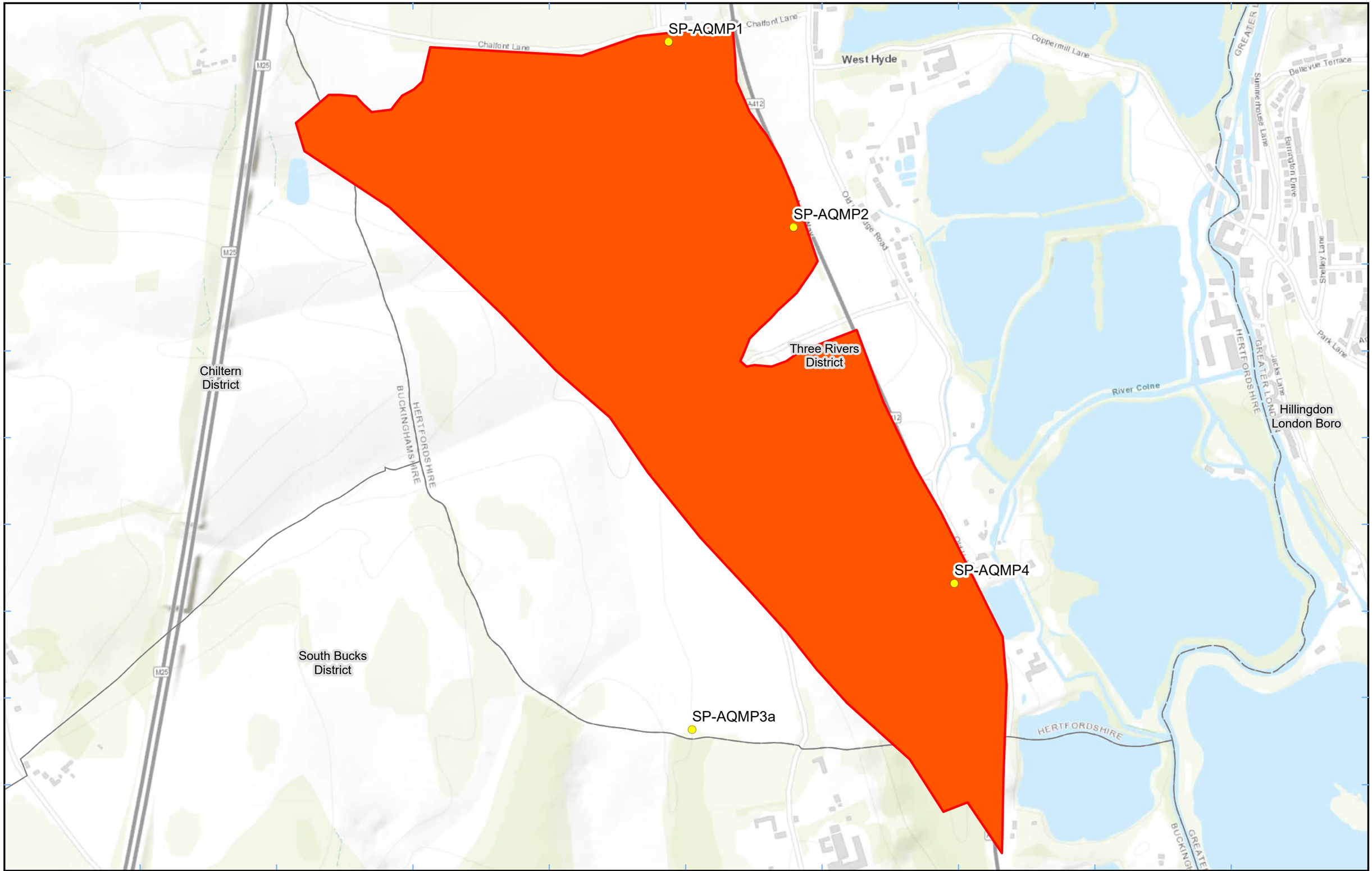
1.1.8 No (0) dust trigger alerts were recorded during the monitoring period (January 2024).

1.1.9 Data capture was below 90% for multiple monitors due to limited solar power due to solar panel location. Installation team are considering alternative locations to allow for better solar power as alternative power sources are not possible at this location.

1.1.10 There were no (0) complaints received during the reporting period (January 2024).

Appendix A – Worksite and Monitoring Locations

Figure 1: Worksites and Monitoring Locations within TRDC



Legend

- Dust Monitor
- District Borough Unitary Boundaries
- Worksite

Map Number

Map Name

Worksite and Monitoring Locations In TRDC (Sheet 1)

Three Rivers District Council

Registered in England. Registration number 06791686.
Registered office: 2 Snowhill, Queensway, Birmingham B4 6GA.

Scale at A3: 1:7,000

0 70 140 210 280
Metres

Doc Number:

Date: 10/08/23

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 PM10 concentration (µg/m3)	Minimum 1-hour PM10 concentration (µg/m3)	Maximum 1-hour PM10 concentration (µg/m3)	Number of 1-hour periods exceeding trigger level of 190 µg/m3	Data capture (%)
SP-AQMP1	502922, 191467	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	6.5	1.0	30.0	0	100.0
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	8.2	1.0	30.0	0	74.3
SP-AQMP3a	502970, 190069	On the southern boundary of the site at Old Shire Lane	M	Yes	Yes	7.6	1.0	23.0	0	41.5
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	8.4	1.0	24.0	0	74.3

Figure 2: Continuous dust 1-hour mean indicative PM_{10} concentration for all dust monitors