

Air Quality and Dust Monitoring Monthly Report – September 2021

Three Rivers District 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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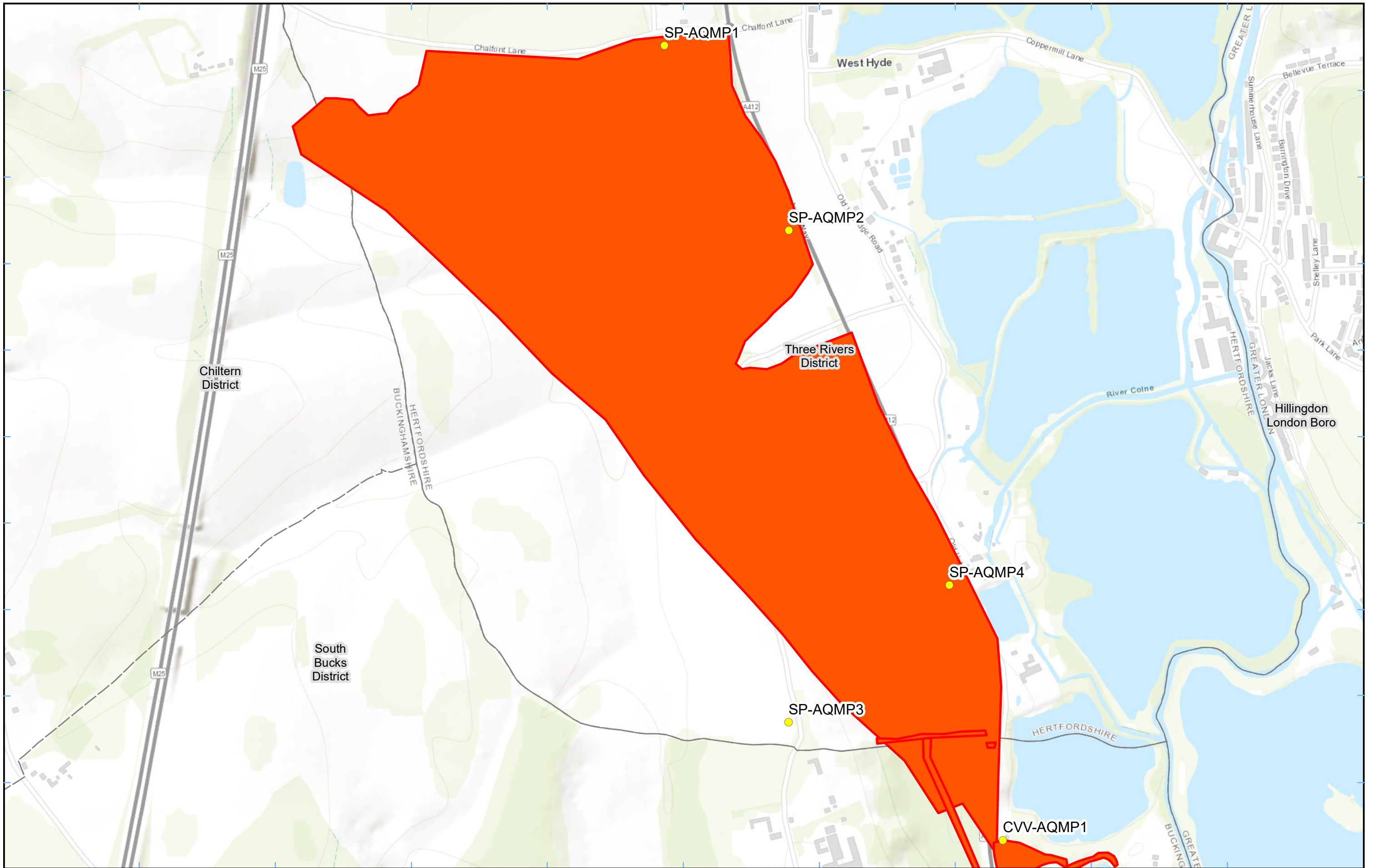
Monthly Summary

- 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 in the Three Rivers District Council (TRDC) area during September 2021.
- 1.1.2 Figure 1 in Appendix A indicates 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 phase of construction works commenced in July 2017. The current worksites, as presented in Appendix A, Figure 1, include:
- General Plant: wheel washers, generators and site wide support plant;
 - Earthworks and Drainage: soil strip, excavation, filling, subgrade and ground stabilisation;
 - Road and Hardstanding: surfacing, grading and excavation;
 - Civils: platforms, accommodation and slabs, and removal of materials stored in SP10 (car park extension);
 - Superstructure;
 - I&M Installation: Pynesfield quarry and site wide;
 - Stockpiling: INNS stockpile management and storage of excavated materials from CSP in SP10 and West Hyde Embankment;
 - Chalfont Lane Establishment;
 - STP acid storage fencing;
 - Batching Plant 1, 2 and 3: collection of concrete for D-wall activity at vent shaft sites and batching plant 1, 2 & 3 - deliveries and operation;
 - Tunnel Precast Factory: Factory NB2 – production and factory NB1 – production;
 - Shire Lane Culvert: preparing ground and backfilling and foundation slab, walls, roof slab, wing walls and transition;
 - Pynesfield Cake Placement: earthworks chalk cake placement;
 - Tunnelling Works (Surface Support);
 - CVV Jetty Pre-Cast Yard Operation; and
 - Launching Girder Installation and assembly.
- 1.1.5 Four (4) dust monitors are installed around the 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 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 PM₁₀ concentrations of 190 µg/m³, measured as a 1-hour mean, 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 There were no (0) dust trigger alerts recorded during the monitoring period (September 2021).
- 1.1.9 Data capture for monitor SP-AQMP4 was below 90% because of a connection issue between the monitor and server, which has since been resolved.
- 1.1.10 There were no (0) complaints received during the reporting period (September 2021).

Appendix A – Worksite and Dust Monitoring Locations

Figure 1: Three Rivers District Council Worksites and Monitoring locations during September 2021



Legend
● Dust Monitor
 District Borough Unitary Boundaries
 Worksite

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Map Number
 Worksite and Monitoring Locations
 In TRDC (Sheet 1)
 Three Rivers District Council

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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and September 2021 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 (%)
SP-AQMP1	502922, 191467	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	12.0	1.0	89.0	0	98.6
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	9.5	1.0	73.0	0	99.9
SP-AQMP3	503175, 190086	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	10.4	1.0	76.0	0	93.2
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	11.9	1.0	75.0	0	91.1

Figure 1: Continuous dust 1-hour mean indicative PM₁₀ concentration for dust monitors

