

## Air Quality and Dust Monitoring Monthly Report – September 2022

Three Rivers District Council



## Department for Transport

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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 September 2022.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for September 2022.
- 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](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, include:

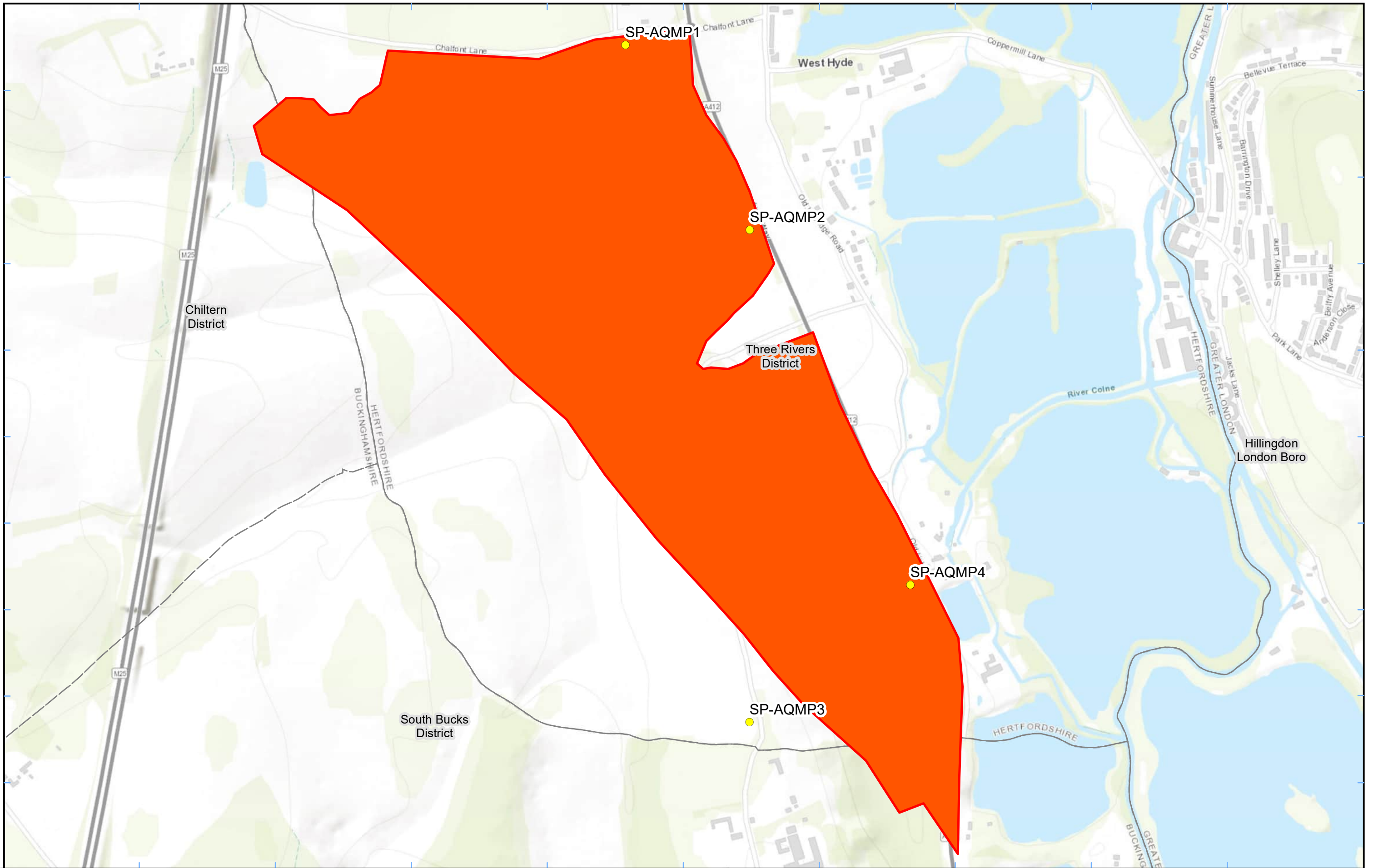
## **South Portal site**

- General Plant: wheel washers, generators and site-wide support plant;
- Earthworks and Drainage: soil strip, excavation, filling, subgrade and ground stabilisation;
- Cranfield trails - earthworks and fencing;
- Road and Hardstanding: surfacing, grading and excavation;
- Civils: platforms, accommodation and slabs;
- I&M Installation: site-wide;
- Stockpiling: INNS stockpile management and storage of excavated materials from CVW 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 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;
- Viaduct Precast Factory;
- Western Valley Slope Cake Placement: earthworks chalk cake placement;
- Tunnelling Works (Surface Support);
- CVW Jetty Pre-Cast Yard Operation;
- Concrete Breaking Activities;
- Pugmill Plant South Portal Permanent Works;
- South Portal Permanent Works; and
- Surface Water Management.

- 1.1.5 Four (4) dust monitors are installed around the worksite, where works are underway. These sites returned a medium dust risk rating.
- 1.1.6 Dust monitoring locations and results for September 2022 are presented in Appendix B, Table 1, together with a line chart 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<sub>10</sub> concentrations of 190 µg/m<sup>3</sup>, 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 No (0) dust trigger alerts were recorded during the monitoring period (September 2022).
- 1.1.9 Data capture was below 90% for SP-AQMP3 due to technical issues and/or loss of power due to insufficient sunlight/wind for monitors using solar/wind power.
- 1.1.10 No (0) complaints were received during the monitoring period (September 2022).

# Appendix A – Worksite and Dust Monitoring Locations

Figure 1: Worksites and monitoring locations within the TRDC



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

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Map Number  
 Map Name  
**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 2022 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 (%)
SP-AQMP1	502922, 191467	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	6.5	1.0	28.0	0	100.0
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	8.6	1.0	53.0	0	98.6
SP-AQMP3	503175, 190086	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	6.8	1.0	46.0	0	20.3
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	7.5	1.0	47.0	0	100.0

Figure 2: Continuous dust 1-hour mean indicative PM<sub>10</sub> concentration for all monitors

