

## Air Quality and Dust Monitoring Monthly Report – February 2023

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.

High Speed Two (HS2) Limited,  
Two Snowhill  
Snow Hill Queensway  
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)

Website: [www.gov.uk/hs2](http://www.gov.uk/hs2)

A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2021, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/version/2](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2) **OGI** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk). Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

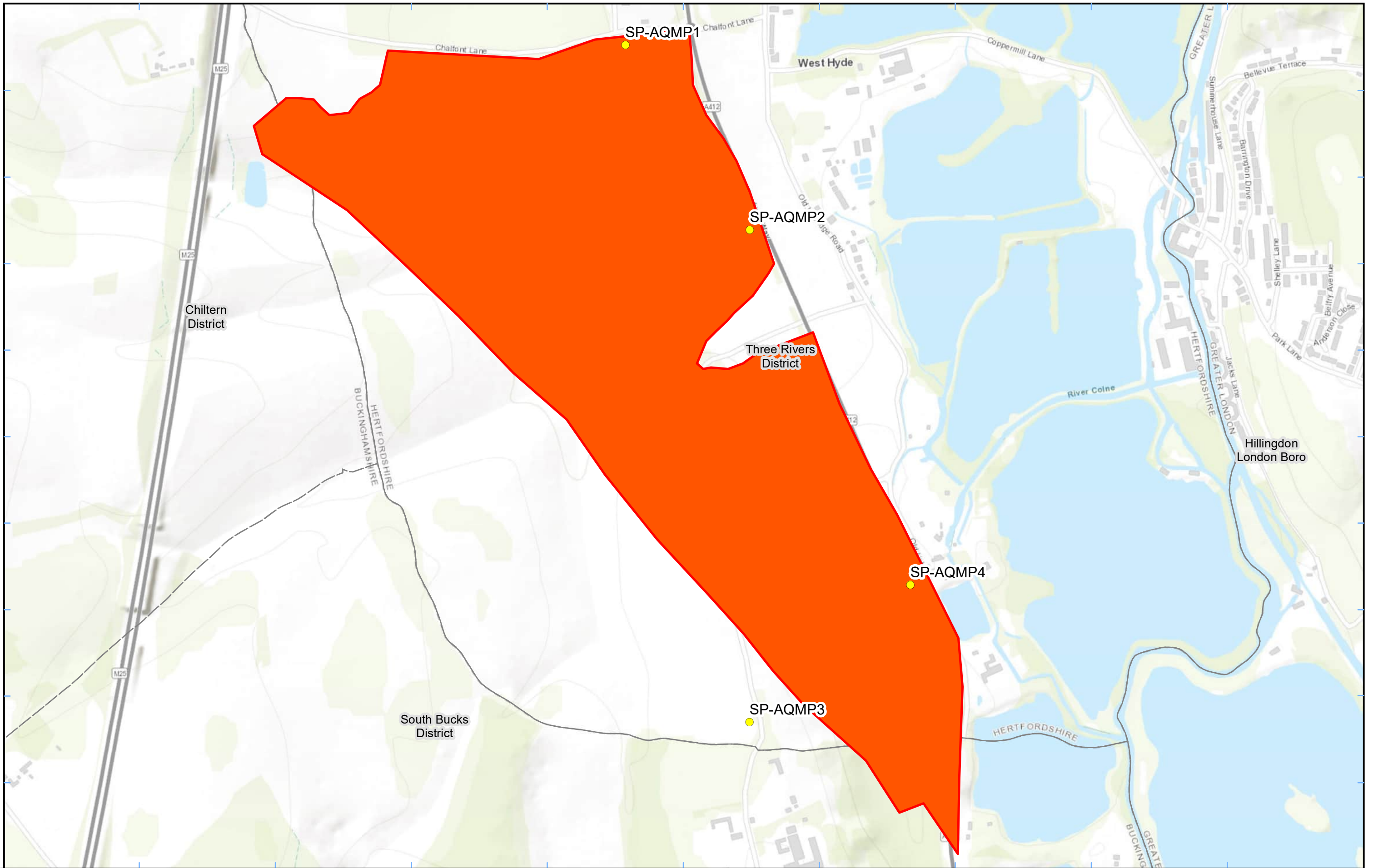
# Monthly Summary

- 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 February 2023.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for October 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 phase of works at the South Portal site commenced within TRDC in October 2022 and is currently ongoing. 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;
  - 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;
  - 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;
  - Pugmill Plant South Portal Permanent Works;
  - Surface Water Management;
  - CVV Formwork Assembly; and
  - Road and Hardstanding: surfacing, grading and excavation.

- 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 October 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 – (December 2018)*' has been applied.
- 1.1.8 There were no (0) dust alerts recorded during the monitoring period (February 2023).
- 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 reporting period (February 2023).

# Appendix A – Worksite and Dust Monitoring Locations

Figure 1: Worksites and Monitoring locations within the TRDC



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

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 TRDC (Sheet 1)**  
 Three Rivers District Council

HS2 Ltd accept no responsibility for any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation or if it is issued in part or issued incomplete in any way.

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

© Crown copyright and database rights 2022.  
 Ordnance Survey Licence Number 100049190.

**Scale at A3: 1:7,000**

**Doc Number:** **Date: 28/04/22**

## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and October 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	13.0	1.0	92.0	0	100.0
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	12.5	1.0	93.0	0	97.2
SP-AQMP3	503175, 190086	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	10.1	1.0	62.0	0	65.5
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	12.7	1.0	77.0	0	94.2

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

