

Air Quality and Dust Monitoring Monthly Report – August 2022

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

Website: 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 **OGI** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: 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 August 2022.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for August 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, 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, include:
- 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 CV 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);
 - CVV 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 are presented in Appendix B, Table 2, 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 Details of trigger alert investigations and remediations are presented in Appendix B, Table 3.
- 1.1.9 Data capture was below 90% for SP-AQMP3 due to a potential solar power issue.
- 1.1.1 Table 1 provides a summary of the complaint information related to dust or air quality received during the reporting period, together with the findings of any related investigations.

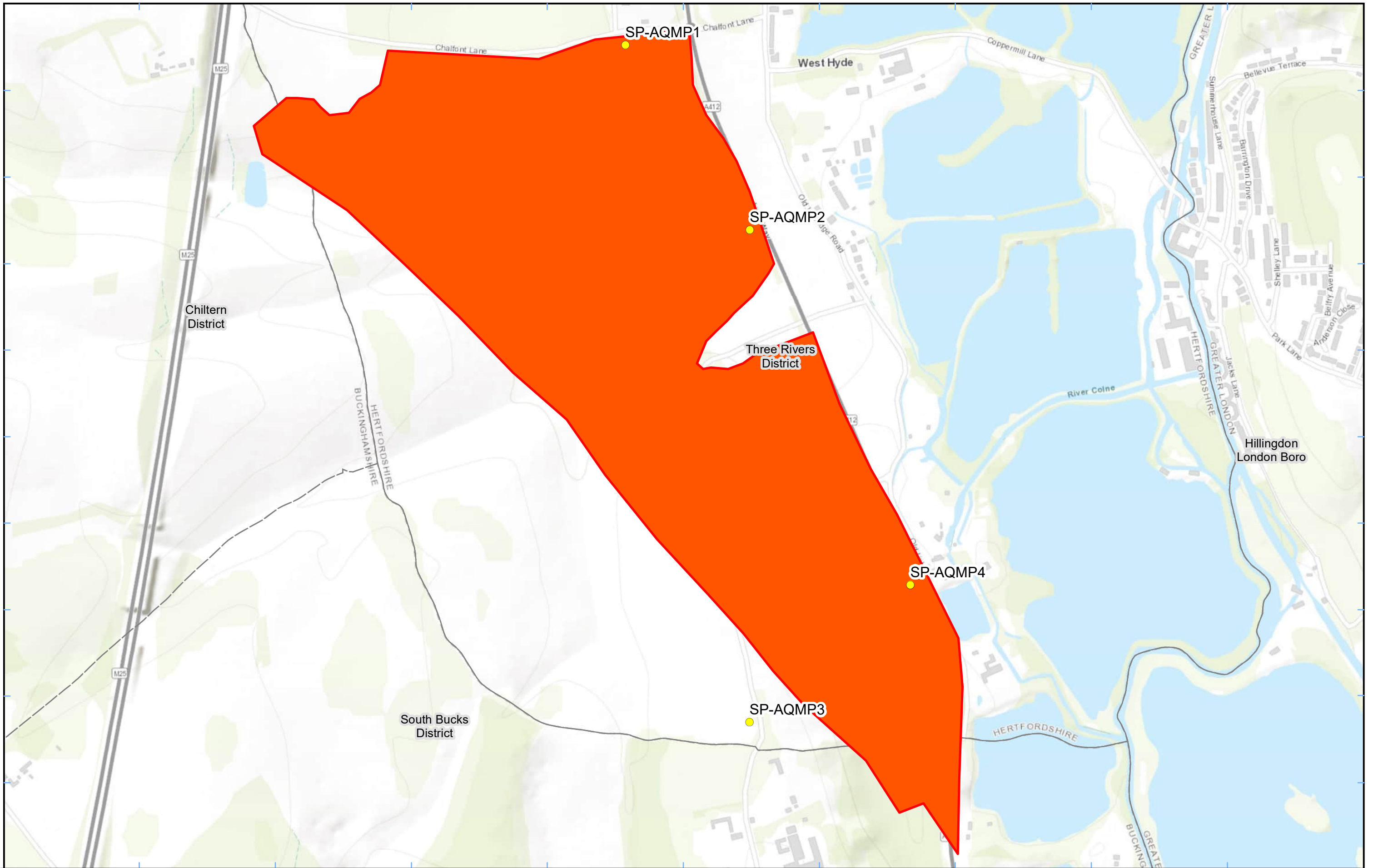
Table 1: Summary of complaints received during August 2022 in TRDC

Complaint Reference No.	Worksite Reference	Description of complaint	Results of investigation
HS2-22-43867-C	N/A	Noise and dust from the current earthworks at our South Portal site.	<p>These works involve the use of excavators, 4x4s and dumpers. An email was sent on 23rd February 2022 explaining the beginning of these works as part of ongoing soil trials near the boundary of the site and property. These soil and planting trials are intended to ensure that the landscaping and planting strategies that are being employed on the site are a success.</p> <p>We are employing site mitigation to control noise and dust, but given the very high temperatures we have been working in over the last month, we have also had to balance water use, meaning we are limited in how often we can damp down existing tracks and work areas. We will continue to use all reasonably practicable mitigation measures on site to control noise and dust and apologise for any disturbance caused.</p> <p>HGVs (Heavy Goods Vehicles) will not be using the access track to the landscaping trials, and the route to the soil trials site is not accessible for quarry traffic. We have a small number of dumpers, excavators and 4x4's using this track during regular working hours.</p> <p>The works for the landscaping and soil trials should be complete by the end of October 2022. The works are not planned to be intensive; they are intermittent with approximately two weeks work remaining across the next two months. After October the focus of these works will shift</p>

			<p>to tree planting and seeding which will not require any heavy plant near the fence line.</p> <p>Due to the nature of the landscaping that will be required across the whole of the Colne Valley Western Slopes site, there will be occasions where the activities of excavators and other heavy plant may be noticeable. We will also be carrying out further works with excavators in the near future.</p>
--	--	--	--

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 2: Dust monitoring locations and August 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 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	7.3	1.0	159.0	0	100.0
SP-AQMP2	503176, 191090	On the eastern boundary of the site at Denham Way	M	Yes	Yes	8.4	1.0	59.0	0	98.7
SP-AQMP3	503175, 190086	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	6.1	1.0	65.0	0	39.2
SP-AQMP4	503503, 190366	On the eastern boundary of the site on the A412	M	Yes	Yes	9.5	1.0	308.0	3	100.0

Table 3: Summary of exceedances during period (August 2022)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
SP-AQMP4	05/08/2022 12:00 – 12:59; 306 µg/m ³ 13:00 – 13:59; 237 µg/m ³	Exceedance due to the hot weather and wind whipping of nearby (within 3m) loose earth mounds and monitor being located immediately adjacent to site-vehicle haul route.	Concentrations at this monitor are to be closely monitored. Ensure earth mounds are appropriately controlled (dampened or seeded where appropriate) and haul routes are regularly inspected and dampened where appropriate.
	12/08/2022 11:00 – 11:59; 308 µg/m ³	Exceedance due to the hot weather and wind whipping of nearby (within 3m) mounds and monitor being located immediately adjacent to site-vehicle haul route.	Concentrations at this monitor are to be closely monitored. Ensure earth mounds are appropriately controlled (dampened or seeded where appropriate) and haul routes are regularly inspected and dampened where appropriate. A member of the Environment Team went to investigate in person and did not observe any unusual activity. Dumpers were passing by on the haul road which may have caused the trigger. It was also observed that a dust suppression bowser was utilised on the haul road confirming suppression measures were in place.

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for all dust monitors

