

## **Air Quality and Dust Monitoring Monthly Report – May 2020**

**Buckinghamshire Council**



## Department for Transport

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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 Align JV and Fusion 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 Buckinghamshire Council (BC) during May 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for May 2020.
- 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 that commenced within BC during February 2020 and is expected to be completed by the end of May 2021. The current worksites at the Chalfont St. Peter Compound and Chalfont St. Giles are presented in Appendix A, Figure 1 and 2. Activities in May included:
- Ongoing works at the compound at the Chalfont St. Peter, which included levelling and stabilisation of site roads, storage platform and piling platform, drainage works and topsoil stripping and stockpiling in Valentines field (west of site offices);
  - Ongoing works at the access road to the Chalfont St. Peter compound, which included fence installation, topsoil and subsoil stripping and stockpiling, vegetation clearance, temporary drainage works and bulk excavation for infiltration tests; and
  - Ongoing works at the access road along Bottom House Farm Lane in Chalfont St. Giles, which included earthworks, topsoil stripping, installation of ducting and drainage, and installation works for a temporary bridge.
- 1.1.5 Three (3) dust monitors are installed around the worksites, where earthworks, construction and trackout activities are underway. These sites returned a medium dust risk rating (for works currently active on site).
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with a line chart of monthly data from each dust monitor presented in Figures 3, 4 and 54. 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>, over a 1-hour period, 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 was one (1) dust trigger alert recorded at CHSP-AQMP1-CDC during the May 2020 monitoring period. Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 Data capture for CHSP-AQMP1-CDC was below 90% for the month of May 2020. This was due to loss of external battery power supplying the monitor. As a result, the monitor was offline and no data was captured between 03/05/20 and 04/05/20, between 09/05/20 and 12/05/20, on 18/05/20, between 21/05/20 and 22/05/20 and between 29/05/20 and 31/05/20. The battery was replaced as soon as it was practical in light of the COVID-19 restrictions, and monitoring resumed following each instance of power loss.
- 1.1.10 There were no (0) complaints related to dust or air quality received during the reporting period (June 2020).

# Appendix A – Monitoring Locations

Figure 1: Worksites and Monitoring locations near Chalfont St. Peter during May 2020





Figure 2: Worksites and Monitoring locations near Chalfont St. Giles during May 2020



## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and May 2020 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 (%)
CHSP-AQMP1-CDC	500114, 193104	On the eastern boundary of the site with Chesham Lane	M	Yes	Yes	18.6	1.7	329.4	1	78
CHSP-AQMP2-CDC	499981, 193224	On the western boundary of the site	M	Yes	Yes	9.4	0.7	189.3	0	100
3252Dust2	498390, 195434	On the boundary with Elm Tree Cottage, Bottom House Farm Lane	M	Yes	No	8.2	1.9	31.6	0	100

Table 3: Summary of exceedances during period (May 2020)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
CHSP-AQMP1_CDC	<u>18/05/2020</u> 09:01 - 10:00: 329.4 µg/m <sup>3</sup>	Roadbridge are currently undertaking soil stabilisation works within the area. These works, at the time of the trigger alert involved mixing the ground with cement.	Additional dust suppression means were put in place, prior to the works continuing. Works are continuing to be monitored closely, and site operatives are continuing to dampen down the stockpiles, with care especially when moving materials to minimise dust release.

Figure 3: Continuous dust 1-hour mean indicative PM<sub>10</sub> concentration for CHSP-AQMP1-CDC for May 2020

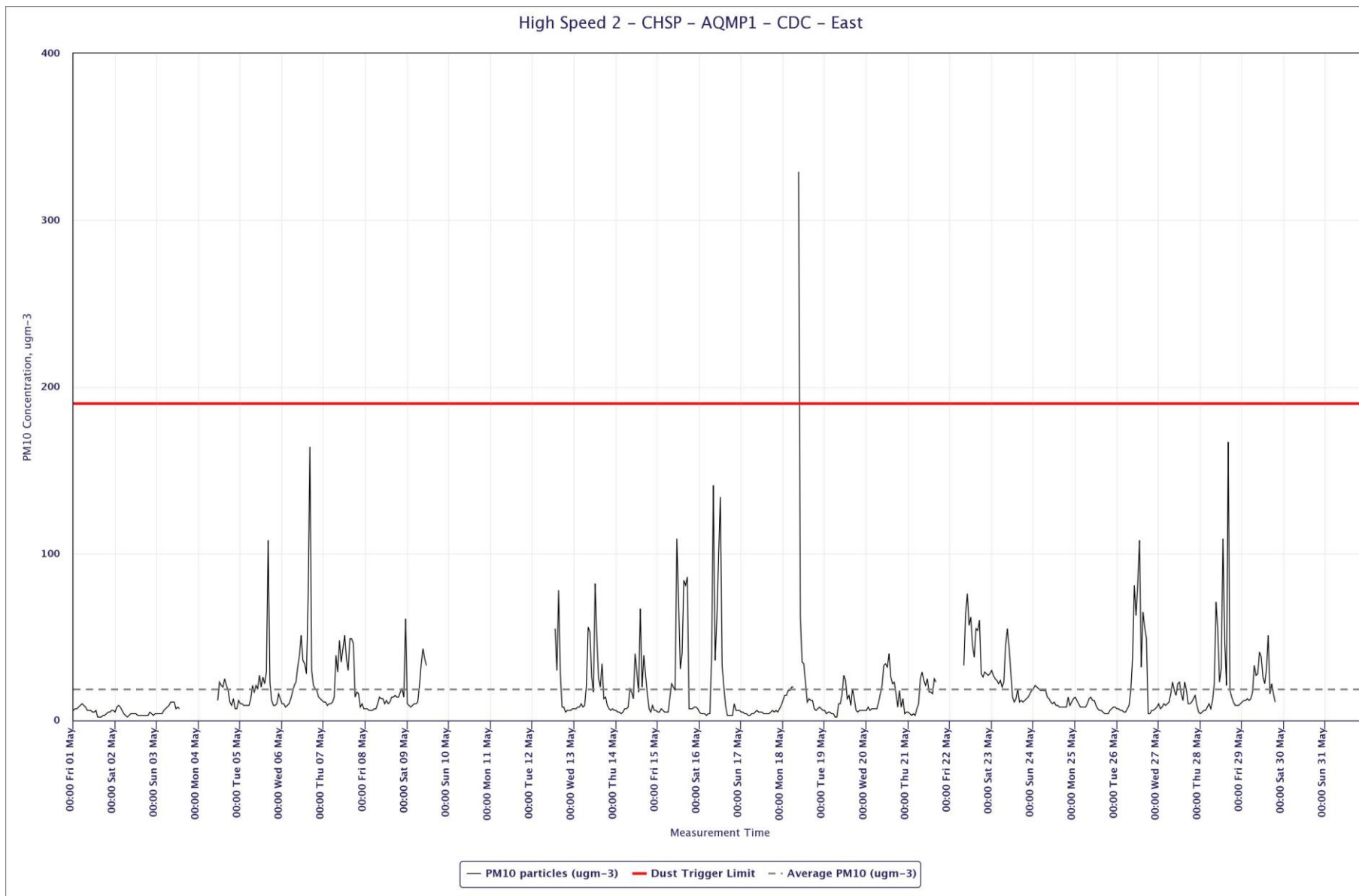




Figure 4: Continuous dust 1-hour mean indicative PM<sub>10</sub> concentration for CHSP-AQMP2-CDC for May 2020

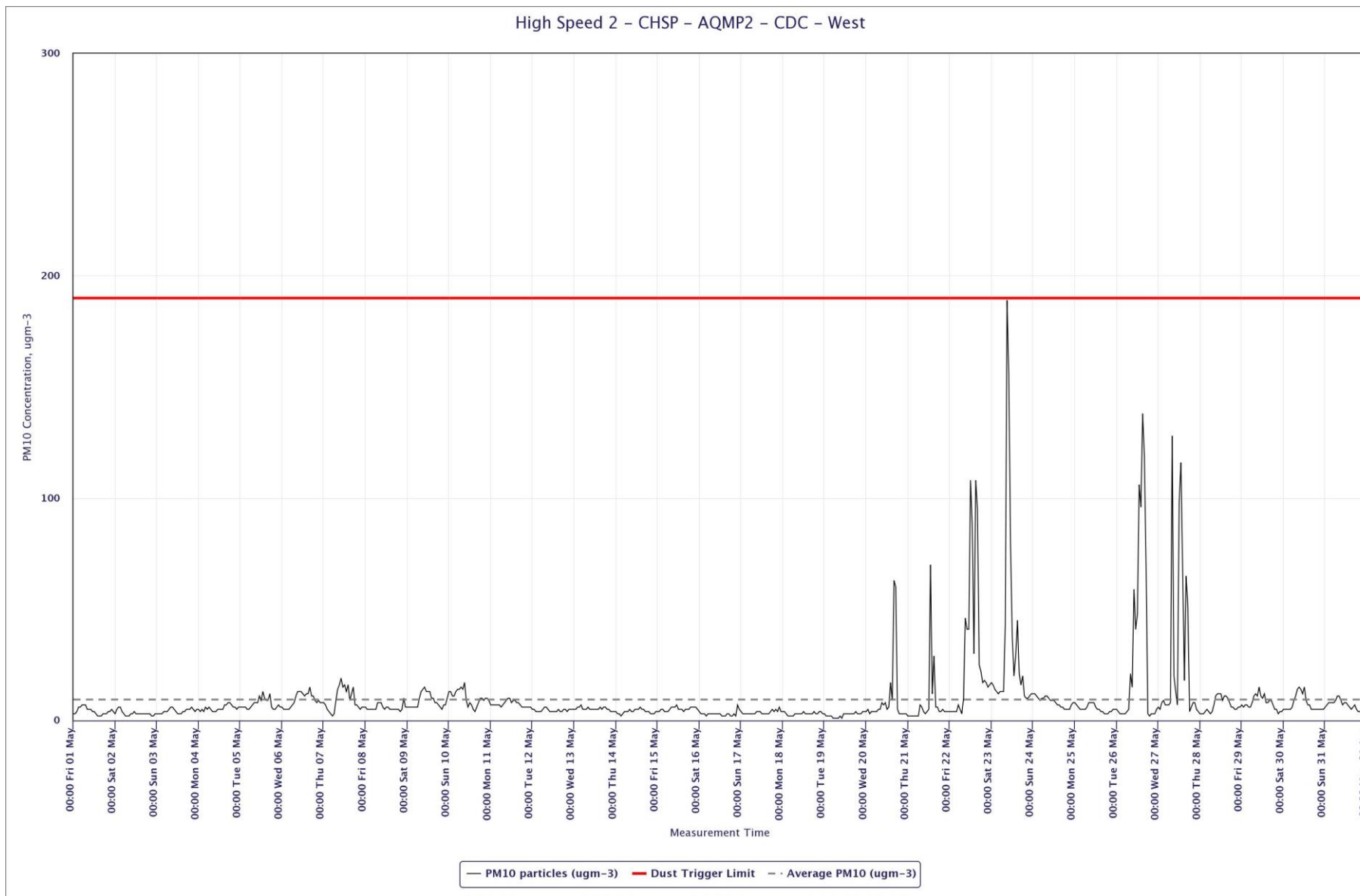


Figure 5: Continuous dust 1-hour mean indicative PM<sub>10</sub> concentration for 3252Dust2 for May 2020

