

Air Quality and Dust Monitoring Monthly Report – June 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

Website: 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 June 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for June 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, 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 June included:
- Ongoing works at the main site compound at the Chalfont St. Peter, which included stockpiling bulk materials from the access road, drainage installation, levelling of piling platform, installation of infiltration boreholes, excavation for pumping station and attenuation pond, block work, deliveries of plant and equipment and excavations on the piling platform for the bentonite plant set up;
 - Ongoing works at the access road to the Chalfont St. Peter compound, which included excavation of infiltration pond and ducting and stabilisation on the access road; 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 5. 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, 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 were two (2) dust trigger alerts recorded at CHSP-AQMP1-BC during the June 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-BC was below 90% for the month of June 2020. This was due to loss of external battery power supplying the monitor. The battery for the monitor has been replaced 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 June 2020



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



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and June 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 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 (%)
CHSP-AQMP1-BC	500114, 193104	On the eastern boundary of the site with Chesham Lane	M	Yes	Yes	12.5	1.5	298.7	2	78
CHSP-AQMP2-BC	499981, 193224	On the western boundary of the site	M	Yes	Yes	8.0	0.6	178.8	0	100
3252Dust2	498390, 195434	On the boundary with Elm Tree Cottage, Bottom House Farm Lane	M	Yes	No	9.3	1.4	71.1	0	100

Table 2: Summary of exceedances during period (June 2020)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
CHSP-AQMP1-BC	<u>18/06/2020</u> 13:01 - 14:00: 298.7 µg/m ³	At the time of the trigger alert, no works were being undertaken in the vicinity of the monitor. The cause of the trigger is therefore not considered to be associated with our works. Maintenance of the monitor is planned..	Dust suppression continues to be deployed, reviewed and monitored across the area.
CHSP-AQMP1-BC	<u>26/06/2020</u> 15:01 - 16:00: 261.7 µg/m ³	Site activities were limited to vehicles accessing and egressing site and reinforced concrete works involving reinforcement and formwork. No works occurred in the vicinity of the monitor. No significant dust was observed during the afternoon period.	Internal roads were damped down using water sprays, as is done on a regular basis.

Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for CHSP-AQMP1-BC for June 2020

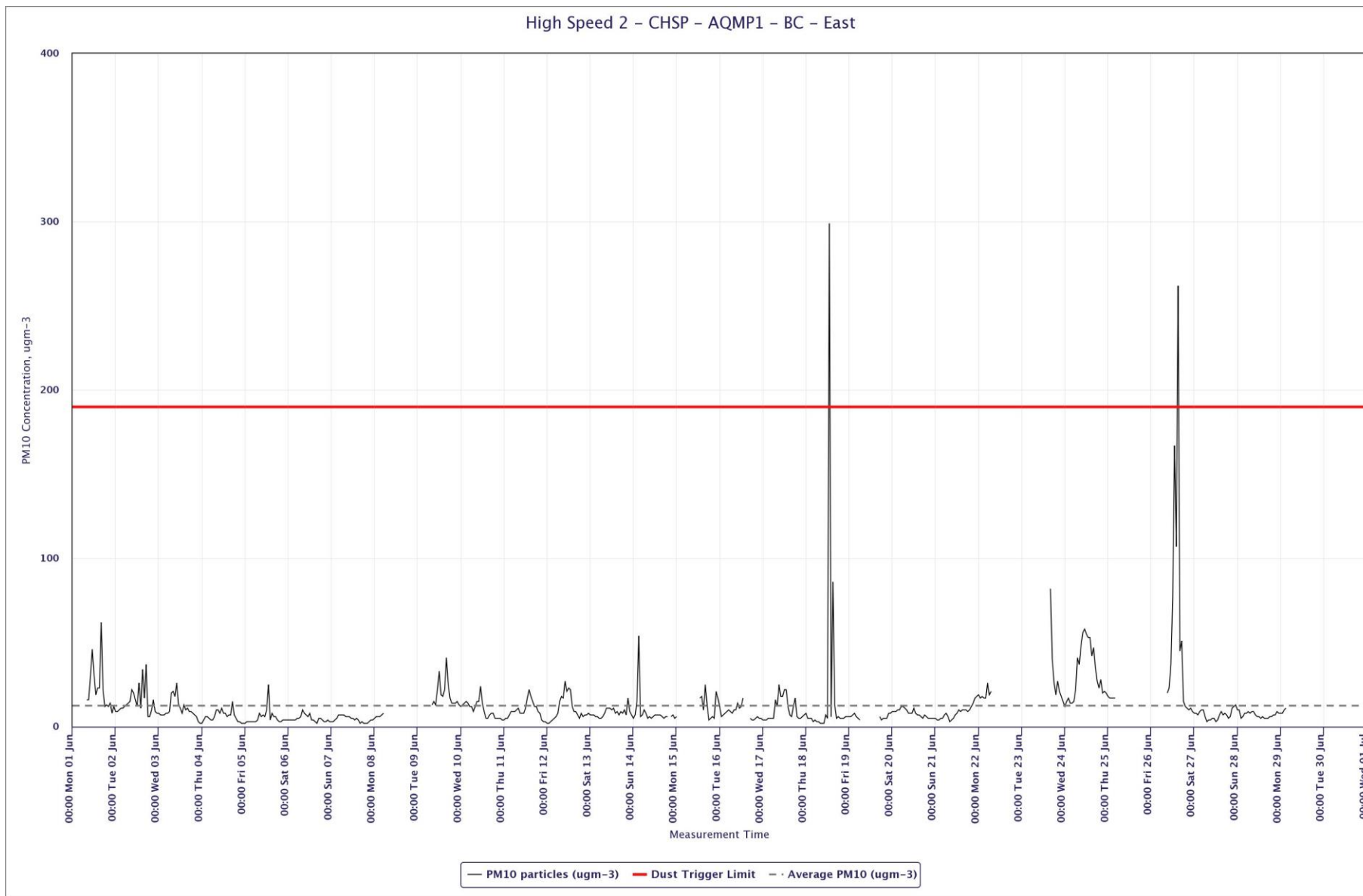


Figure 4: Continuous dust 1-hour mean indicative PM₁₀ concentration for CHSP-AQMP2-BC for June 2020

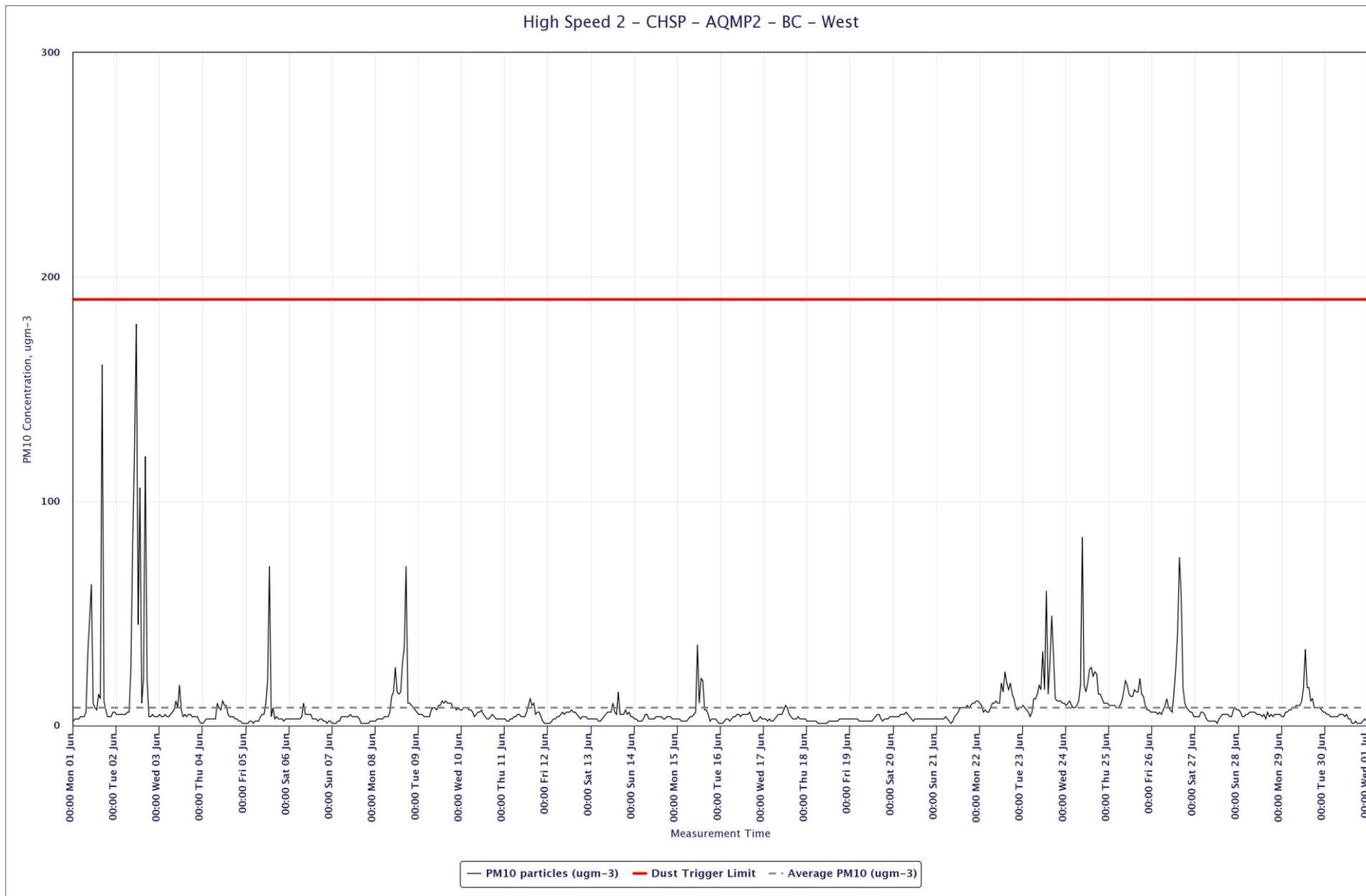


Figure 5: Continuous dust 1-hour mean indicative PM₁₀ concentration for 3252Dust2 for June 2020

