

Air Quality and Dust Monitoring Monthly Report – August 2019

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 August 2019.
- 1.1.2 Figure 1 in Appendix A indicates the current worksites together with the dust monitoring locations for August 2019.
- 1.1.3 This summary should be read in conjunction with the overview monitoring report monthly 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 methodology to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works commenced within TRDC during July 2017 (with monitoring being undertaken by others until July 2019), and is expected to be completed by January 2020. The current worksites, as presented in Appendix A, Figure 1, include:
- Ongoing construction of compounds and reinforced concrete structures for the Tunnel boring machine power supply. Worksite located both North and South of Chalfont Lane alongside the M25;
 - Ongoing operation and maintenance of site haul road along the western and northern boundaries of site;
 - Installation of perimeter security fencing around boundary of the South Portal field;
 - Ongoing top-soil strip and trial trenching for the purpose of archaeological investigations;
 - Ecology and geotechnical surveys across the field; and
 - Compound zero works.
- 1.1.5 One (1) dust monitor is installed around worksites, where earthworks, construction and trackout activities are underway. These sites returned a low 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 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 mitigations.
- 1.1.7 The trigger level 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 One (1) dust trigger alert was recorded during the monitoring period (August 2019). Dust trigger alerts are presented in Appendix B, Table 2. All other results were in line with expected ranges.
- 1.1.9 There were no complaints, relating to dust or air quality, received during the monitoring period (August 2019).

Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and Monitoring locations during August 2019



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and August 2019 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 (%)
3252Dust1	502865, 191462	On the northern boundary of the site with Chalfont Lane	L	Yes	No	11.4	1.4	221.5	1	100.0%

Table 2: Summary of exceedances of trigger level in August 2019

Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
27/08/2019 14:00 – 15:00	South Portal, Chalfont Lane	3252Dust1	N/A	On receipt of the trigger alert, an investigation was undertaken and it was determined that the contractor was removing an excavated materials stockpile which was adjacent to the dust monitor at the time of the trigger. No other activity was taking place within the vicinity of the monitor.	The stockpile is completely removed from site and additional dust suppression was deployed under the advisement of the Fusion Environmental Advisor.

Figure 2: Construction dust 1-hour mean indicative PM₁₀ concentration

