

Air Quality and Dust Monitoring Monthly Report – July 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 July 2019.
- 1.1.2 Figure 1 in Appendix A indicates the current worksites together with the dust monitoring locations for July 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 June 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
 - Completion by the MWCC of soil nail trials and formation of trail embankment including the associated topsoil stripping, bulk excavation and formation of compound to support.
- 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 location and results are presented in Appendix B, Table 1, together with a line chart of monthly data from the 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 mitigation.

- 1.1.7 The trigger level of 190 $\mu\text{g}/\text{m}^3$, 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 Data capture was below 90% for the month of July 2019, due to power supply interruptions experienced.
- 1.1.9 No (0) dust trigger alerts were recorded during the monitoring period. All results were in line with the expected ranges.
- 1.1.10 There were no complaints, relating to dust or air quality, received during the monitoring period (July 2019).

Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and Monitoring locations during July 2019



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and July 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	9.6	2.2	55.1	0	73.8%

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

