

Air Quality and Dust Monitoring Monthly Report – February 2020

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 February 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for February 2020.
- 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 methodologies to be implemented by nominated undertakers throughout construction.
- 1.1.4 The current phase of works commenced within TRDC during July 2017 and is expected to be completed by May 2020. The current worksite at the Chiltern Tunnel South Portal Compound is presented in Appendix A, Figure 1. Activities within February included:
- Supportive earthworks to facilitate the cutting and filing of the main platforms and the Chalfont Lane bund;
 - Excavation of Southern Portal cutting for the 2nd lift of soil nails;
 - Foundation treatment works at West Hyde Embankment;
 - Capping layers/hardstandings above the first temporary platforms;
 - Drainage and civil works on the amenities and logistics platform;
 - Foundation works for the main office, canteen and warehouse;
 - Induction centre and temporary batching plant;
 - Start of roller compacted concrete (RCC) on road 11a;
 - Ongoing grouting works at the top of the South Portal Headwall;
 - Ongoing soil nailing works at the Southern Portal; and
 - Start of compaction grouting works at the interface South portal cutting/West Hyde Embankment.
- 1.1.5 Two (2) dust monitors are installed around the worksite, 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 2 and 3. 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 $190 \mu\text{g}/\text{m}^3$, 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 There was one (1) dust trigger alert recorded during the monitoring period (February 2020). Exceedances 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 (February 2020).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations during February 2020



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and February 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 (%)
SP-AQMP1-TRDC	502885, 191488	On the northern boundary of the site with Chalfont Lane	M	Yes	Yes	20.8	1.3	197.0	1	91
SP-AQMP2-TRDC	502872, 190833	On the southern boundary of the site with Denham Way	M	Yes	Yes	11.9	0.5	84.0	0	100

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

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
AQMP1	<u>03/02/2020</u> : 00:00 - 01:00: 197.0 µg/m ³	Trigger occurred outside of site working hours, but was investigated when works commenced. It was noted that there were high wind speeds recorded at the time of the trigger alert.	The trigger alert was not considered to be linked to HS2 works, but will continue to be closely monitored.

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for AQMP1 for February 2020

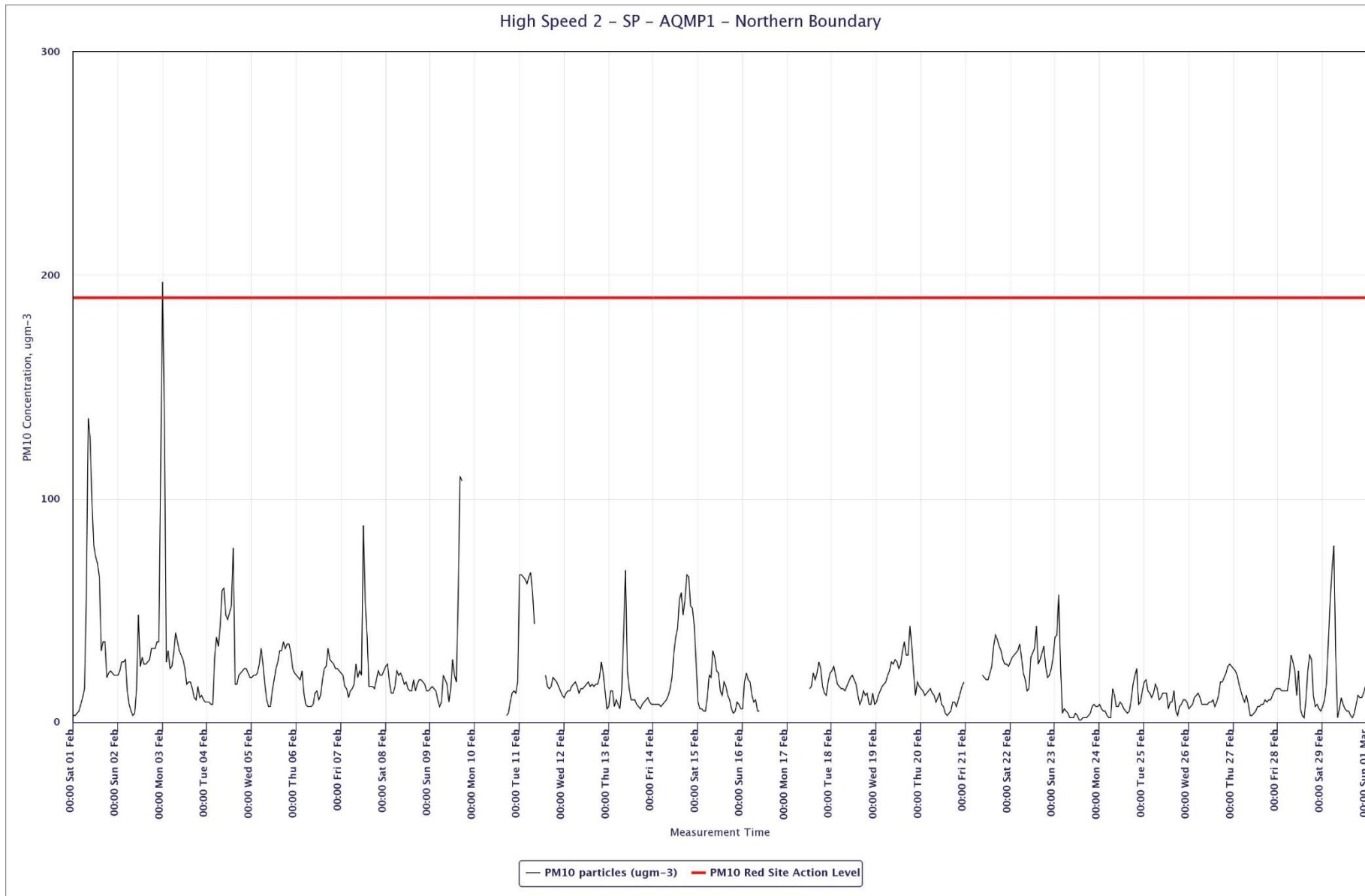


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for AQMP2 for February 2020

