

Air Quality and Dust Monitoring Monthly Report – July 2020

Three Rivers District Council



Department for Transport

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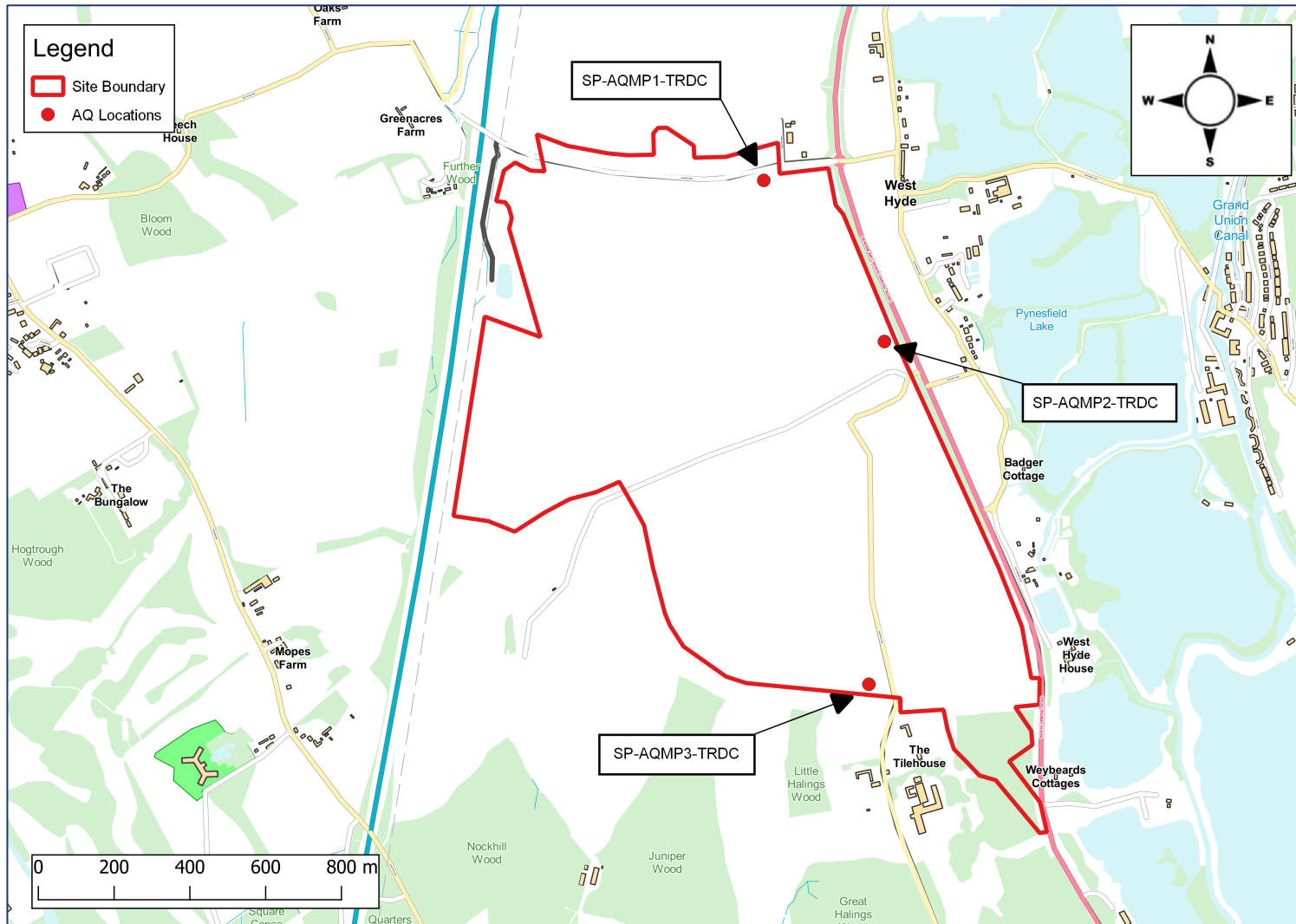
Monthly Summary

- 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 Three Rivers District Council (TRDC) during July 2020.
- 1.1.2 Figure 1 in Appendix A indicates the current worksite together with the dust monitoring locations for July 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 at the South Portal site commenced within TRDC in July 2017 and is expected to be completed by mid-August 2020. The current worksite is presented in Appendix A, Figure 1. During the month of July 2020, the following activities took place:
- Ongoing works at the South Cutting which included: soil nailing and associated grouting activities;
 - Ongoing earthworks, drainage works and construction of hardstanding;
 - Office installations, fit-out and erection of tunnel precast factory; and
 - Ongoing works at the South Portal site, which include: main office 2nd floor cabin installation and main office 1st and 2nd floor internal fit-out completion, canteen internal fit-out completion, tunnel office cabin installation and internal fit-out, the erection of HAKI scaffold bridge and steel erection of the tunnel precast factory.
- 1.1.5 Three (3) 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, 3 and 4. 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 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 was one (1) dust trigger alert recorded at SP-AQMP2-TRDC during the July 2020 monitoring period. Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.
- 1.1.9 Data capture was below 90% for SP-AQMP1-TRDC and SP-AQMP2-TRDC for the month of July.
- 1.1.10 Missing data at SP-AQMP1-TRDC from 08/07/20 to 14/07/20 was due to an airflow error. A replacement unit was installed on 14/07/20.
- 1.1.11 Missing data at SP-AQMP2-TRDC from 06/07/20 to 14/07/20 and from 20/07/20 to the end of the month was due to a fault with the power supply and the loss of continuous battery power respectively. Following onsite investigations on 14/07/20, the faulty power supply was removed and a temporary supply of battery power was connected. The monitor was relocated on 30/07/20 in anticipation of continuous site power which is yet to be established.
- 1.1.12 There were no (0) complaints received, relating to air quality or dust, during this reporting period (July 2020).

Appendix A –Monitoring Locations

Figure 1: Worksites and Monitoring locations during July 2020



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and July 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-AQMP ₁ -TRDC	502885, 191488	On the northern boundary of the site at Chalfont Lane	M	Yes	Yes	17.2	0.1	188.8	0	80
SP-AQMP ₂ -TRDC	503192, 191031	On the eastern boundary of the site at Denham Way	M	Yes	Yes	24.7	1.8	421.2	1	38
SP-AQMP ₃ -TRDC	503154, 190062	On the southern boundary of the site at Tilehouse Lane	M	Yes	Yes	8.2	2.3	45.3	0	100

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

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
SP-AQMP ₂ -TRDC	<u>16/07/2020</u> 18:00 – 421.2 µg/m ³	<p>Upon investigation it was determined that the reason for the trigger was linked to traffic on the quarry haul road to the south of the monitoring location, not associated with align works, approximately 10 m from the monitor.</p> <p>All nearby platforms/stockpiles associated with our works have undergone soil stabilisation techniques mixing lime and cement into the soil to create a hardstanding. The closest platform is approximately 10 m from the monitor.</p>	<p>As it was determined that the trigger was not linked to HS2 works no further action was taken. However, this will continue to be monitored and highlighted to you.</p>

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP1-TRDC for July 2020

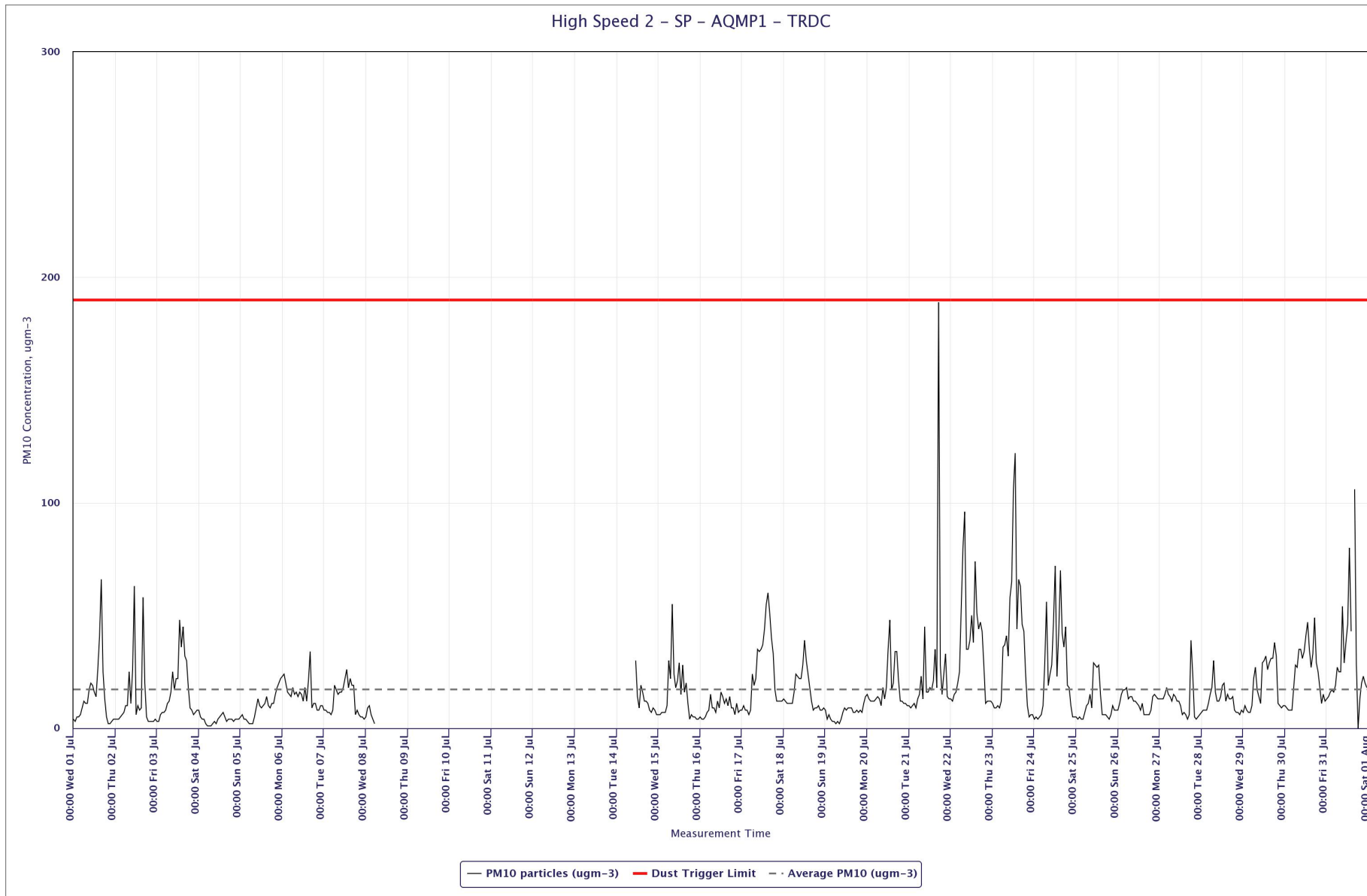


Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP2-TRDC for July 2020

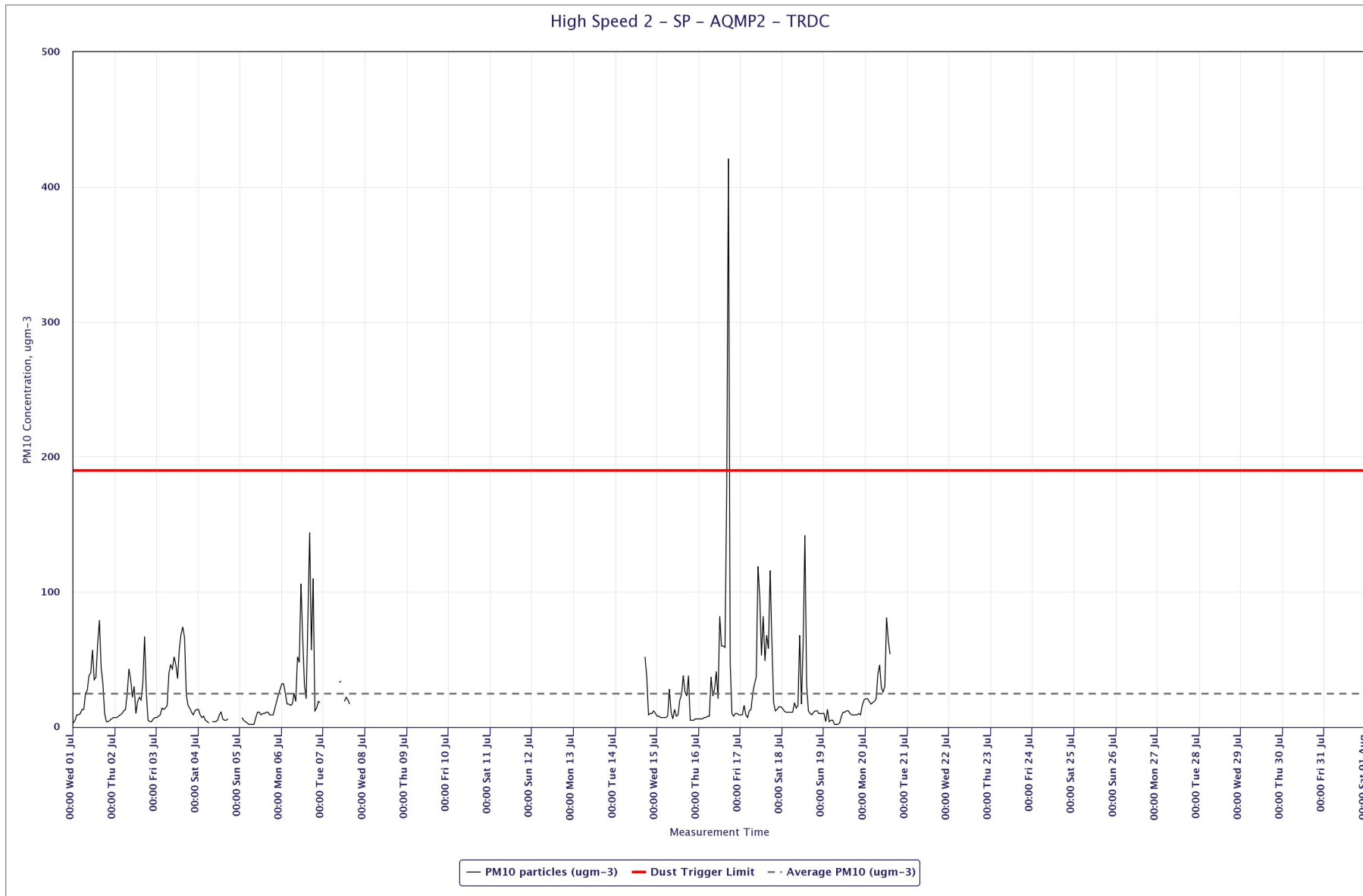


Figure 4: Continuous dust 1-hour mean indicative PM₁₀ concentration for SP-AQMP3-TRDC for July 2020

