

Air Quality and Dust Monitoring Monthly Report – July 2021 Birmingham City 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 within Birmingham City Council (BCC) during July 2021.
- 1.1.2 Figure 1 and Figure 2 in Appendix A indicates the BCC worksite together with dust monitoring locations for July 2021.
- 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 BCC during July 2018 and is expected to be completed by 2025. The current phase of works, at the Birmingham Museum Trust (BMT), Curzon Street Station and Washwood Heath Depot are presented in Appendix A, Figures 1 and 2. Activities for each worksite during June 2021 included:
- Ground remediation and utility works at Curzon Street Station;
 - Mobilisation and setup of the compound area and haulage routes at Washwood Heath Depot; and
 - Demolition and crushing of existing concrete foundations on site at Washwood Heath Depot.
- 1.1.5 There are six (6) dust monitors installed for the current phase of works within BCC. The Washwood Heath Depot site returned a low risk rating for dust soiling and health effects; therefore, automatic monitoring is not required at this site, however monitoring is undertaken on a trial basis to test a solar panel and battery power kit before additional solar power kits are deployed at other construction assets. Dust Risk Assessments for the other worksites returned a high dust risk rating.
- 1.1.6 Dust monitoring locations and results for July 2021 are presented in Appendix B, Table 1 together with line charts for July 2021 from each dust monitor presented in Figures 3 to 8. 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 no (0) dust trigger alerts recorded during the reporting period (July 2021).
- 1.1.9 The data capture for monitors #552 and #775 was below 90% for the month of July 2021 due to the monitors being decommissioned when works at this site (the Birmingham Museum Trust site) were completed by the current contractor. The monitors will be reinstalled with the next stage of works.
- 1.1.10 There were no (0) complaints, relating to dust or air quality, received during this reporting period (July 2021).

Appendix A - Worksite and Dust Monitoring Locations

Figure 1: Birmingham City Council Worksites and monitoring locations during July 2021.

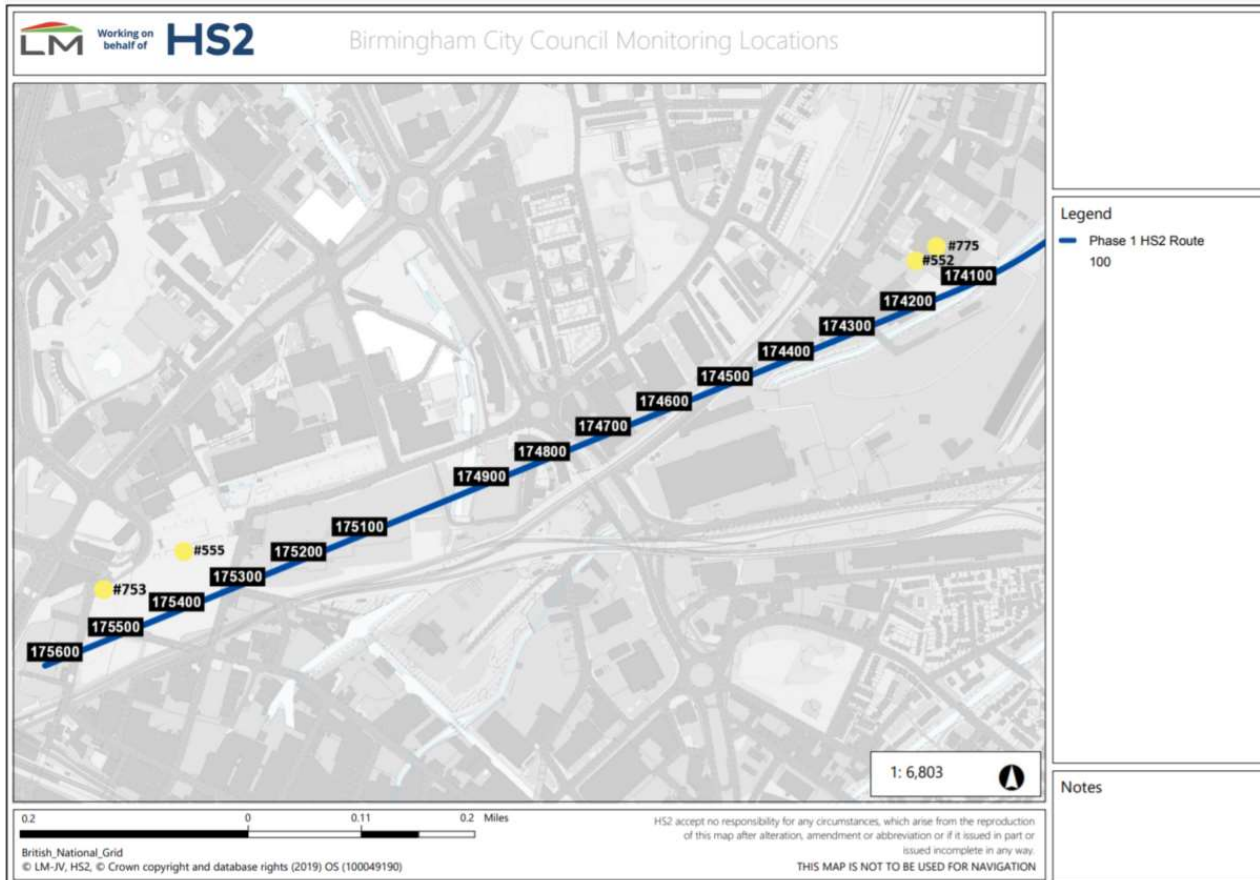
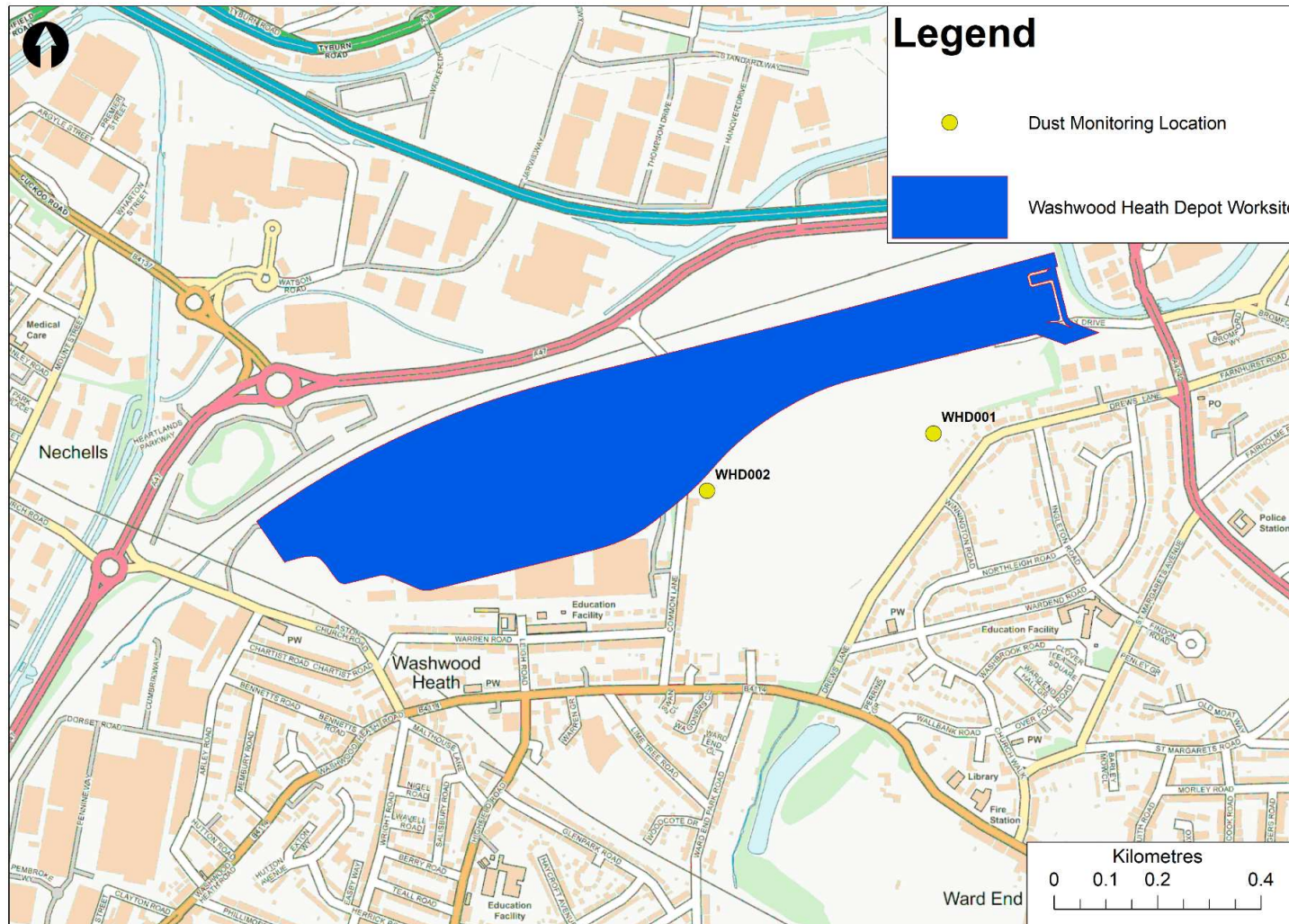


Figure 2: Birmingham City Council Worksites and monitoring locations during July 2021



Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and July 2021 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 rate (%) |
|----------------------|-------------------|---|---------------------------|--------------------------------------|---|---|--|--|---|-----------------------|
| Dust #552 (old #82) | 408811, 287485 | Monitor outside the building | H | Yes | No | 10.1 | 0.0 | 42.7 | 0 | 69.2 |
| Dust #775 (old #85) | 408841, 287529 | Monitor secured inside the building | H | Yes | No | 8.3 | 5.6 | 16.6 | 0 | 71.0 |
| Dust #530 (old #555) | 407702, 287079 | Curzon Street Station HS2 Site | H | Yes | No | 6.7 | 0.0 | 37.8 | 0 | 99.7 |
| Dust #753 | 407619, 287006 | Curzon Street Station HS2 Site | H | Yes | No | 5.2 | 0.0 | 33.8 | 0 | 93.8 |
| WHD001 | 411211, 289245 | Washwood Health Depot, near receptors on Drews Lane | L | Yes | No | 8.1 | 0.5 | 36.6 | 0 | 100.0 |
| WHD002 | 410758, 289130 | Washwood Heath Depot, near receptors on Common Lane | L | Yes | No | 5.1 | 0.1 | 23.1 | 0 | 100.0 |

Figure 3: Construction dust hourly mean indicative PM₁₀ concentration for Dust #552 (July 2021)

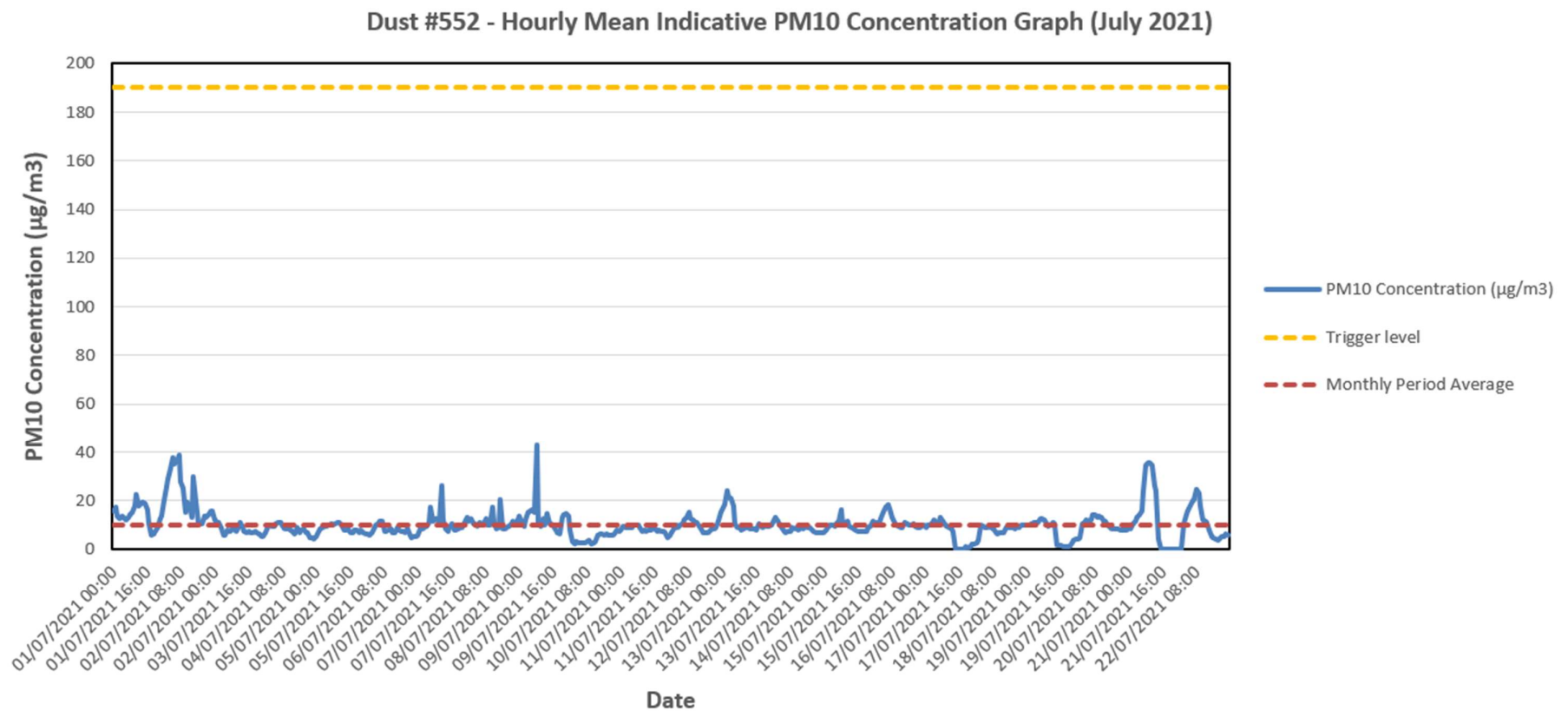


Figure 4: Construction dust hourly mean indicative PM₁₀ concentration for Dust #775 (July 2021)

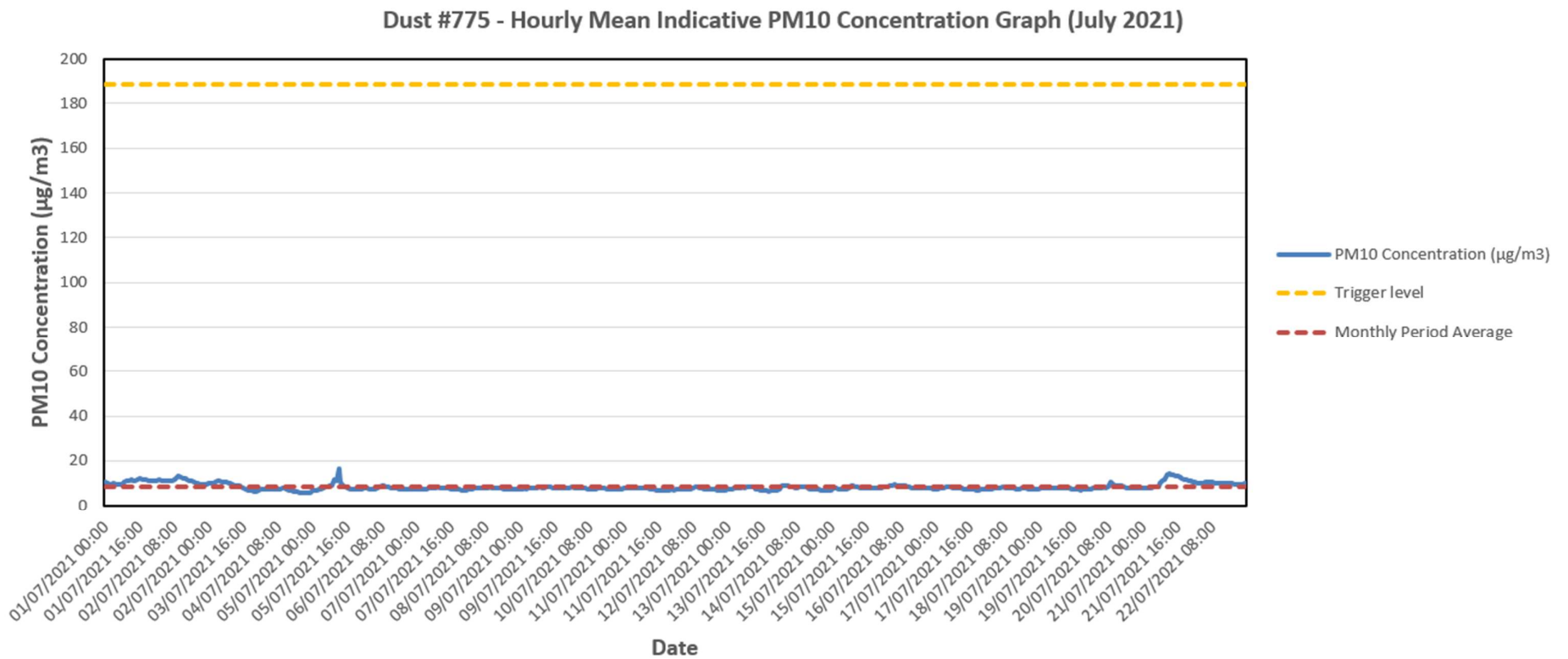
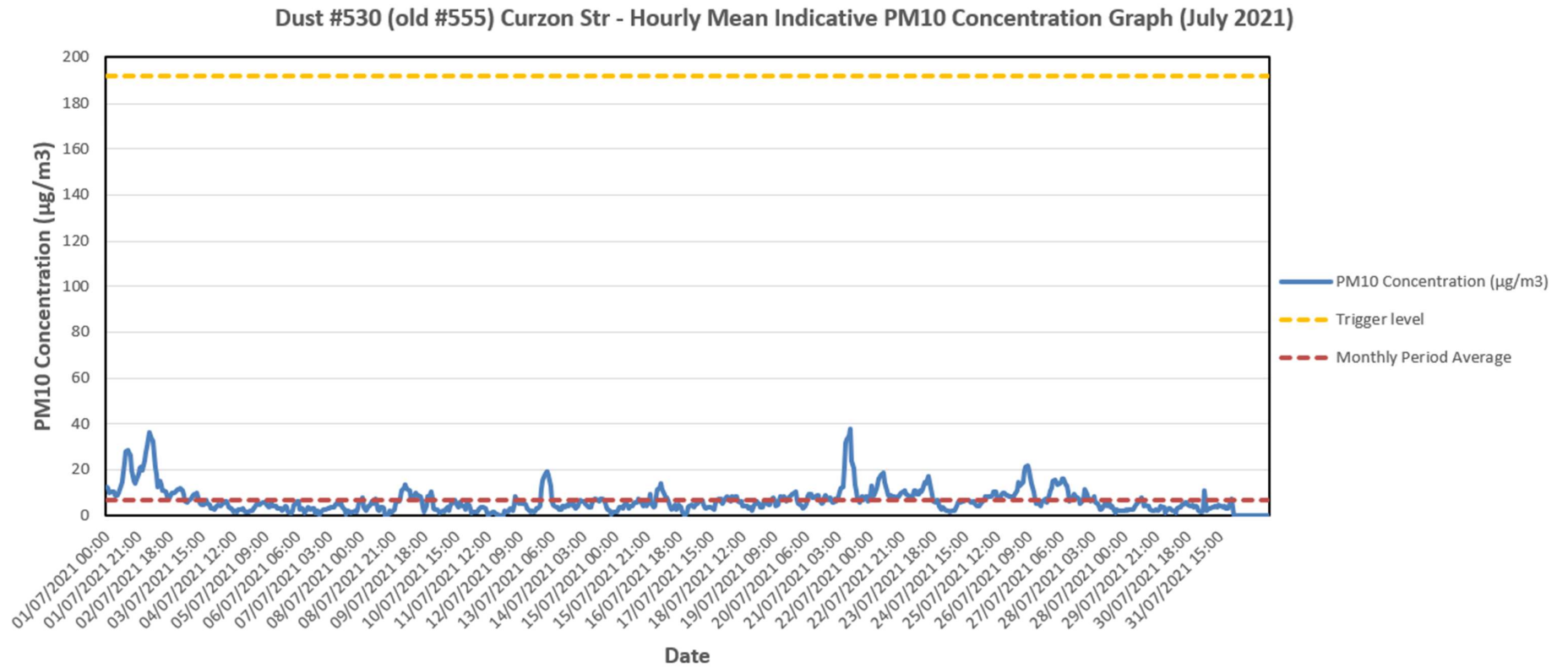


Figure 5: Construction dust hourly mean indicative PM₁₀ concentration for Dust #530 (old #555) (July 2021)



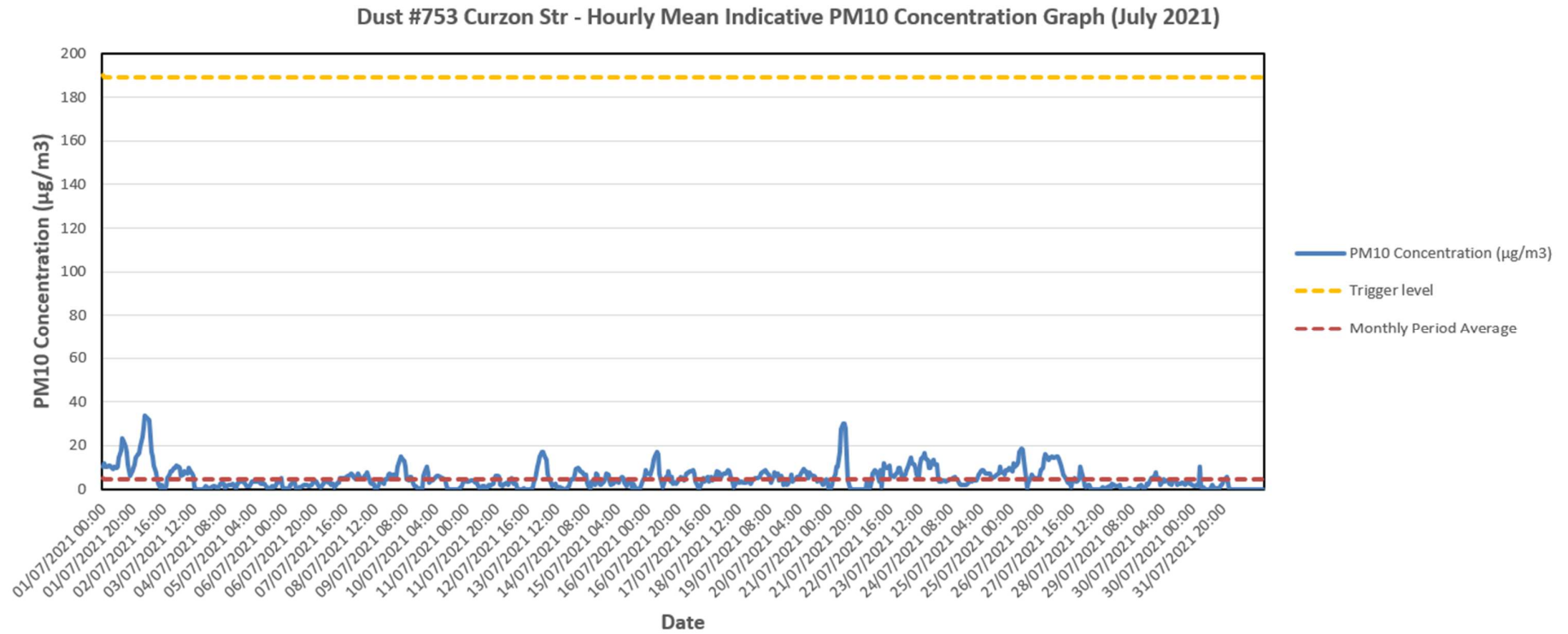


Figure 7: Construction dust 1-hour mean mean indicative PM₁₀ concentration for dust monitor WHD001 (July 2021)

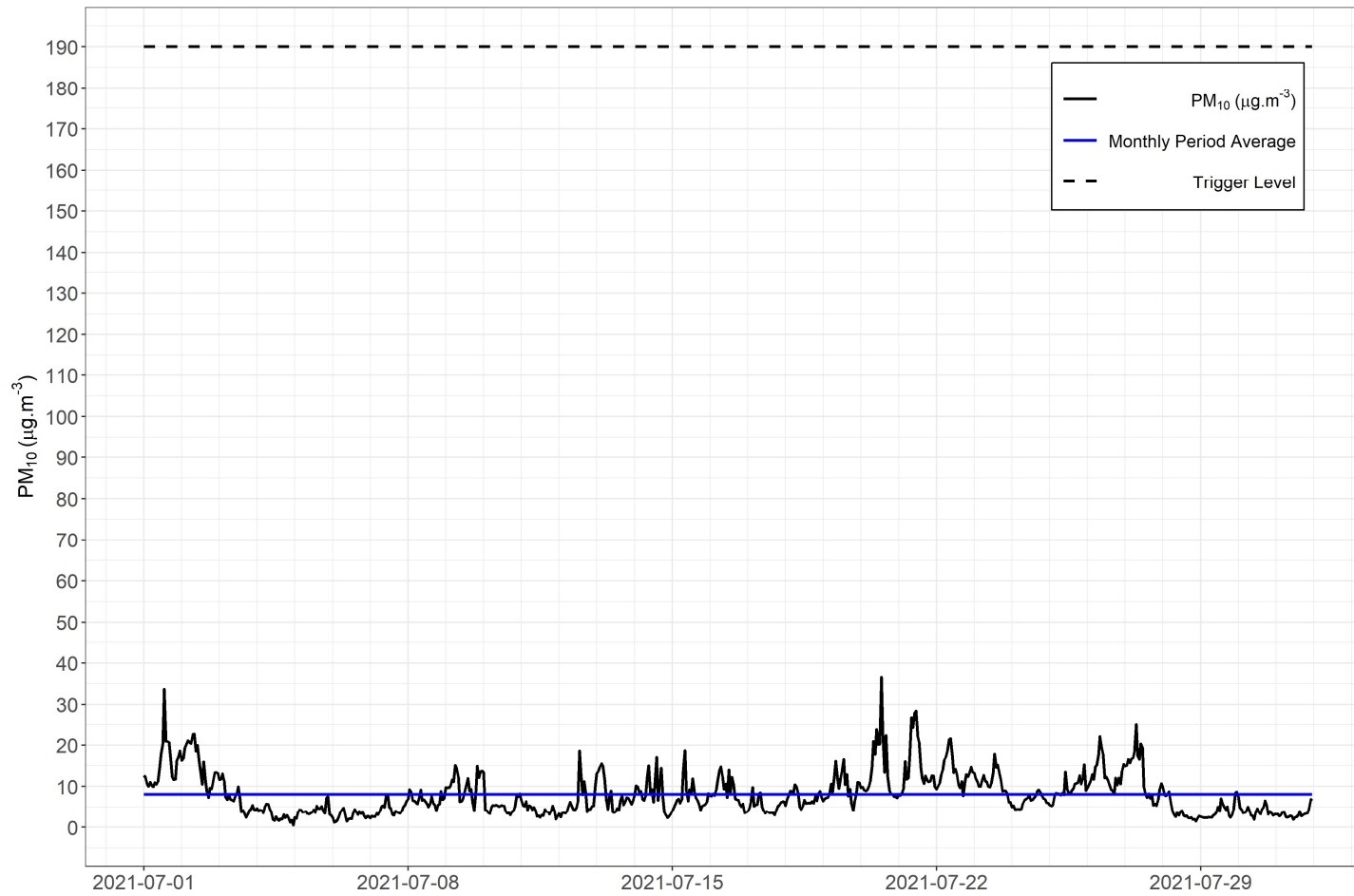


Figure 8: Construction dust 1-hour mean mean indicative PM₁₀ concentration for dust monitor WHD002

