

## Air Quality and Dust Monitoring Monthly Report – **November** 2020

Birmingham City Council



## Department for Transport

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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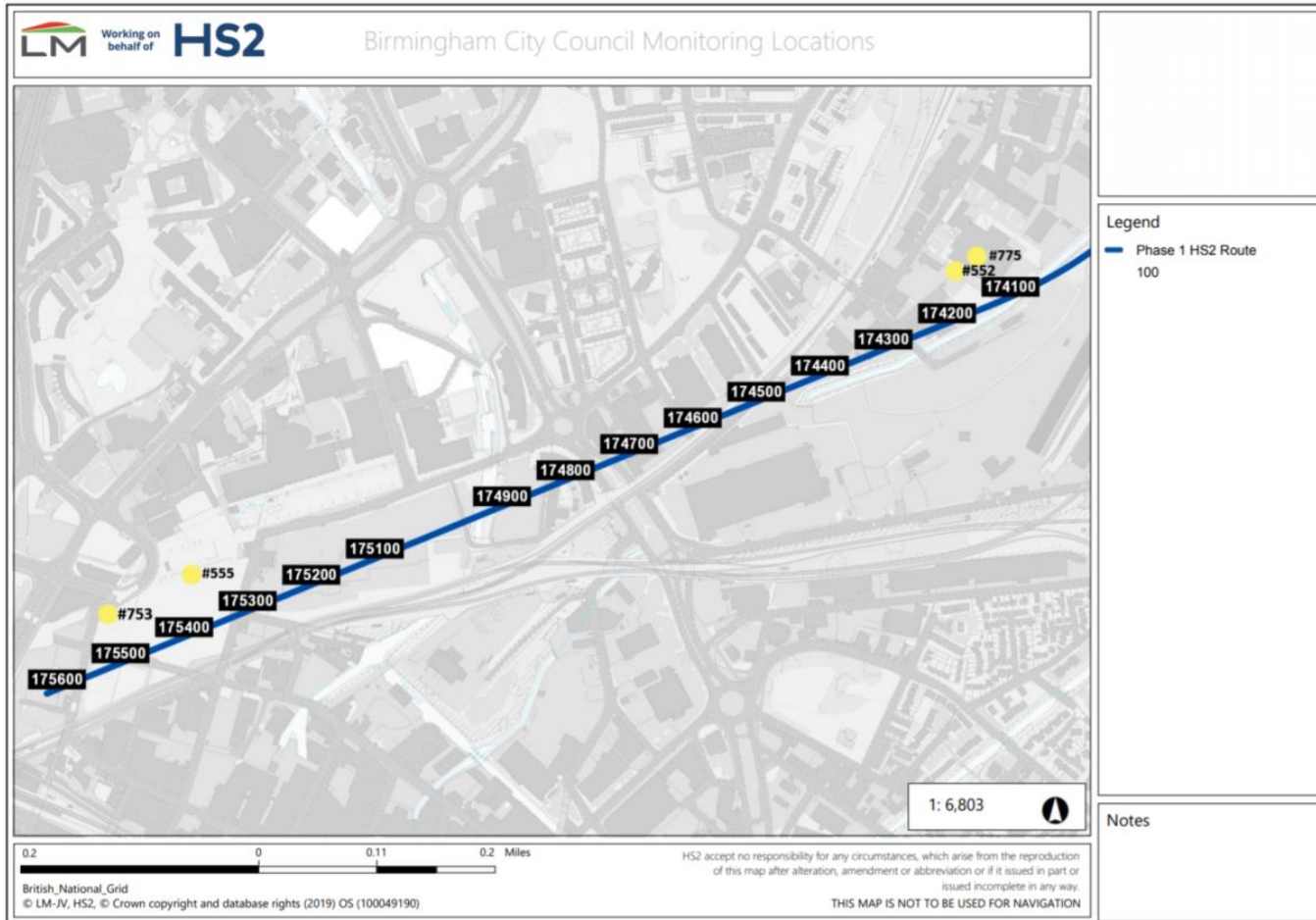
# Monthly Summary

- 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 November 2020.
- 1.1.2 Figure 1 in Appendix A indicates the BCC worksite together with dust monitoring locations for November 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](http://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 the end of 2021. There are currently four (4) dust monitors (Aeroqual Dust Sentry Monitors) installed for the current phase of works within the BCC. Two (2) dust monitors are installed at the Birmingham Museum Trust (BMT) (one inside the building (artefact storage area) and the other outside the building). There are two (2) dust monitors installed at Curzon Street Station, where the ground remediation works are currently underway at this site. Ground investigation works were carried out along Erskine Street and Inkerman Street in November 2020,
- 1.1.5 Dust monitoring locations and results for November 2020 are presented in Appendix B, Table 1 together with line charts for November 2020 from each dust monitor presented in Figures 2 to 5. 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.
- 1.1.6 The trigger level for PM<sub>10</sub> concentrations of 190 µg/m<sup>3</sup>, 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.
- 1.1.7 There were five (5) dust trigger alerts recorded during the monitoring period (November 2020). However, following investigations it was noted that these exceedances were not related to HS2 site activities, but rather the prevailing weather conditions (heavy fog experienced). Exceedances are presented in Appendix B, Table 2. All other results were in line with expected ranges.

- 1.1.8 Data capture for dust monitor #753 was below 90% for the month of November 2020. This was due to an unauthorised disruption of the power supply to the monitor. The power supply was reinstated, and the monitoring resumed.
- 1.1.9 There were no (0) complaints received, related to dust or air quality, during the reporting period (November 2020).

# Appendix A –Worksite and Dust Monitoring Locations

Figure 1: Birmingham City Council Worksites and monitoring locations during November 2020.



## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and November 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 <sub>10</sub> concentration (µg/m <sup>3</sup> )	Minimum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Maximum 1-hour PM <sub>10</sub> concentration (µg/m <sup>3</sup> )	Number of 1-hour periods exceeding trigger level of 190 µg/m <sup>3</sup>	Data capture rate (%)
Dust #552 (old #82)	408811, 287485	Monitor outside the building	High	N/A	N/A	17.0	0.0	268.1	2	96.7
Dust #775 (old #85)	408841, 287529	Monitor secured inside the building	High	N/A	N/A	12.2	6.4	99.3	0	91.6
Dust #530 (old #555)	407702, 287079	Curzon Street Station HS <sub>2</sub> Site	High	N/A	N/A	13.2	0.8	215.7	3	100.0
Dust #753	407619, 287006	Curzon Street Station HS <sub>2</sub> Site	High	N/A	N/A	7.1	0.0	47.8	0	72.7

Table 2: Summary of exceedances of trigger level in November 2020

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
#552	05/11/2020 21:01 – 23:00 (x2): 268.1 ug/m <sup>3</sup>	At the time of the trigger alerts, no works were being undertaken on the site.	LMJV will continue to carry out routine monitor maintenance, to ensure the monitors are functioning optimally.
#530	05/11/2020 to 06/11/2020 between 22:01 – 01:00 (x3): 215.7 ug/m <sup>3</sup>	It is therefore believed that these alerts are linked to the heated inlet mechanism rather than any site activities. It has been confirmed that the heated inlet is working, however erroneously recorded PM10 readings due to the high levels of humidity (i.e. the thick fog experienced).	

Figure 2: Construction dust hourly mean indicative PM<sub>10</sub> concentration for Dust #552 (November 2020)

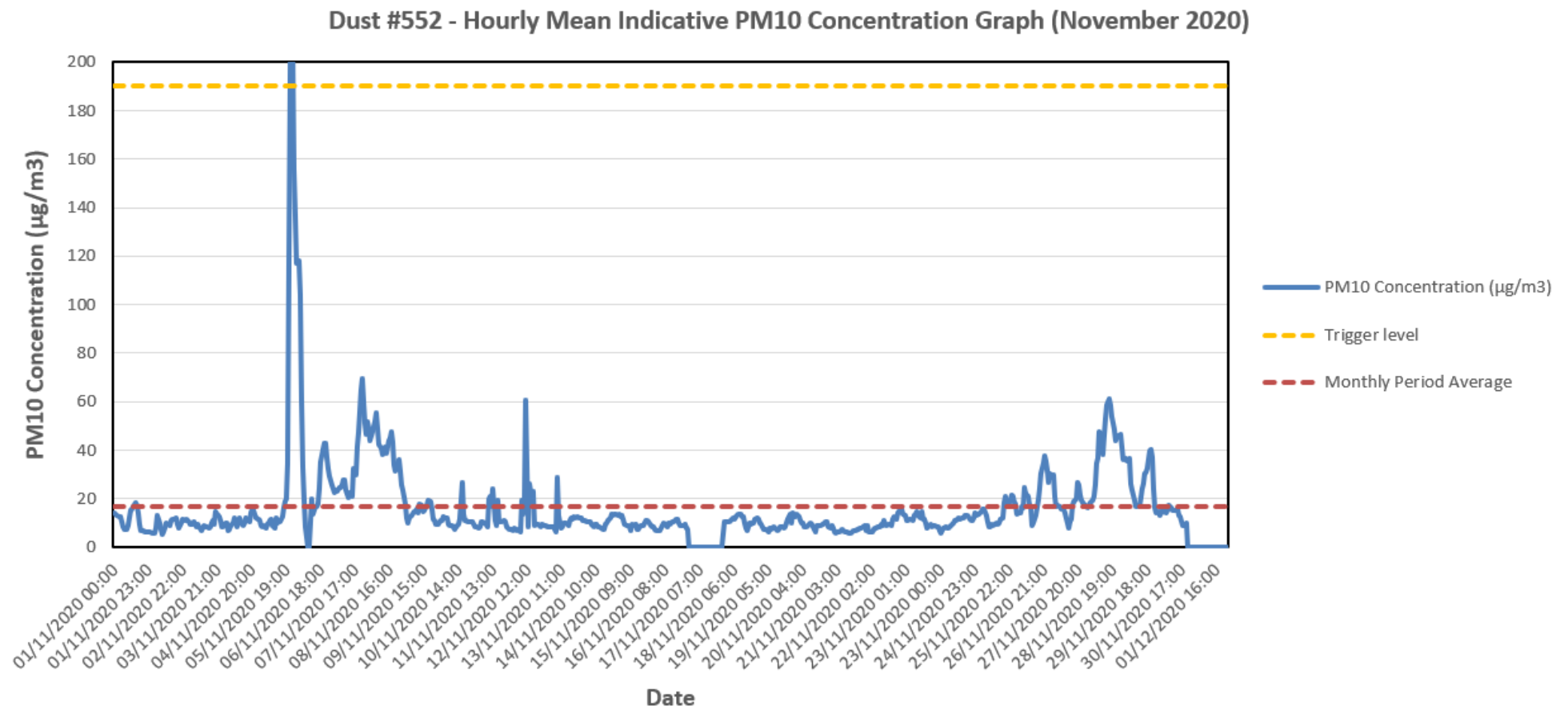


Figure 3: Construction dust hourly mean indicative PM<sub>10</sub> concentration for Dust #775 (November 2020)

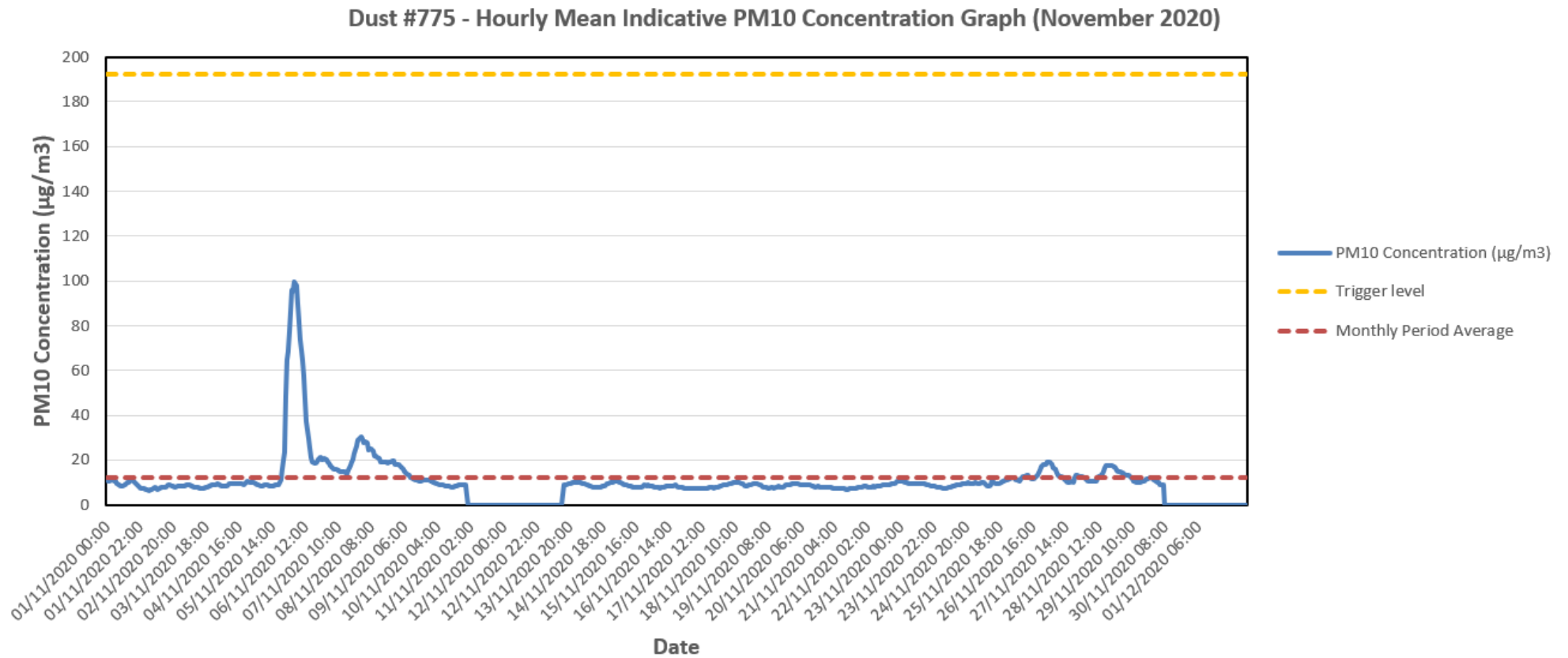




Figure 4: Construction dust hourly mean indicative PM<sub>10</sub> concentration for Dust #530 (old #555) (November 2020)

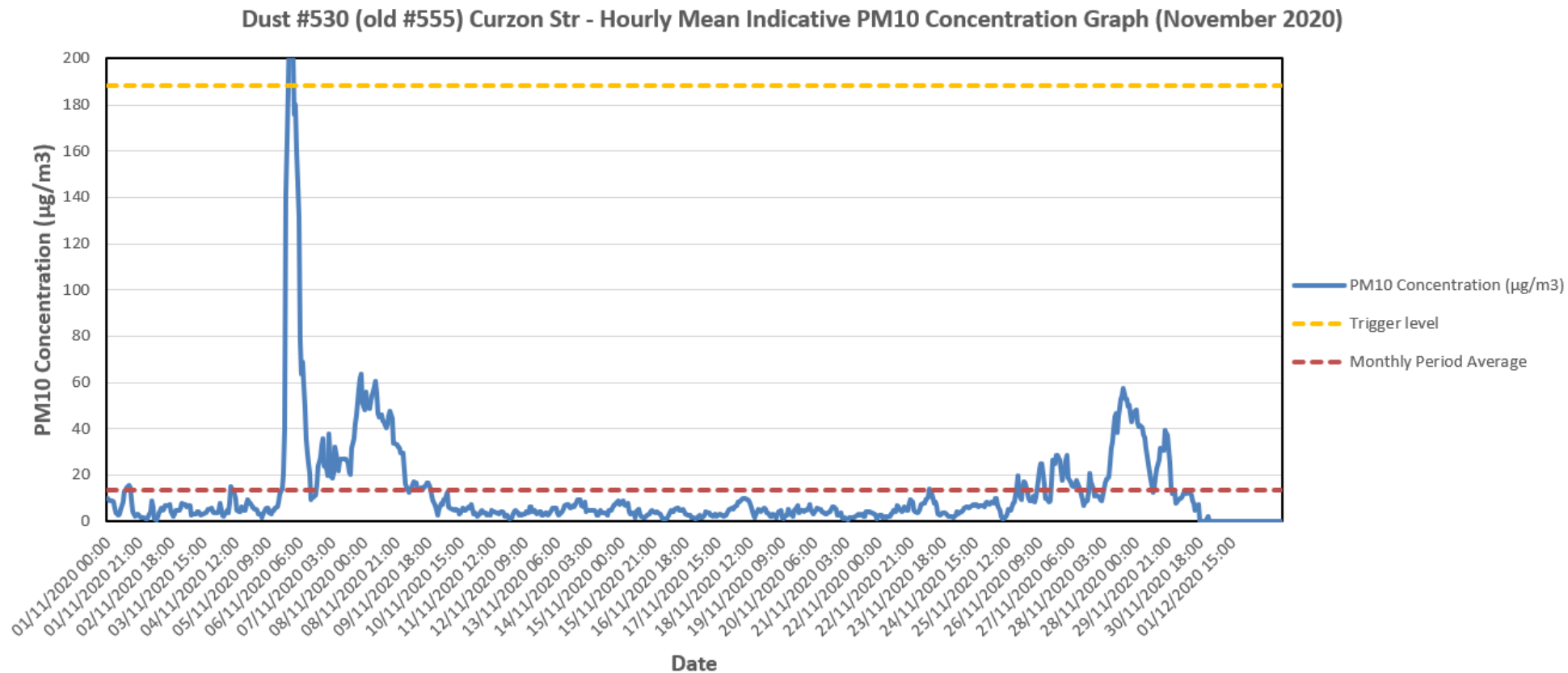


Figure 5: Construction dust hourly mean indicative PM<sub>10</sub> concentration for Dust #753 (November 2020)

### Dust #753 Curzon Str - Hourly Mean Indicative PM<sub>10</sub> Concentration Graph (November 2020)

