

## **Air Quality and Dust Monitoring Monthly Report – September 2019**

**Three Rivers District Council**



## Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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# Monthly Summary

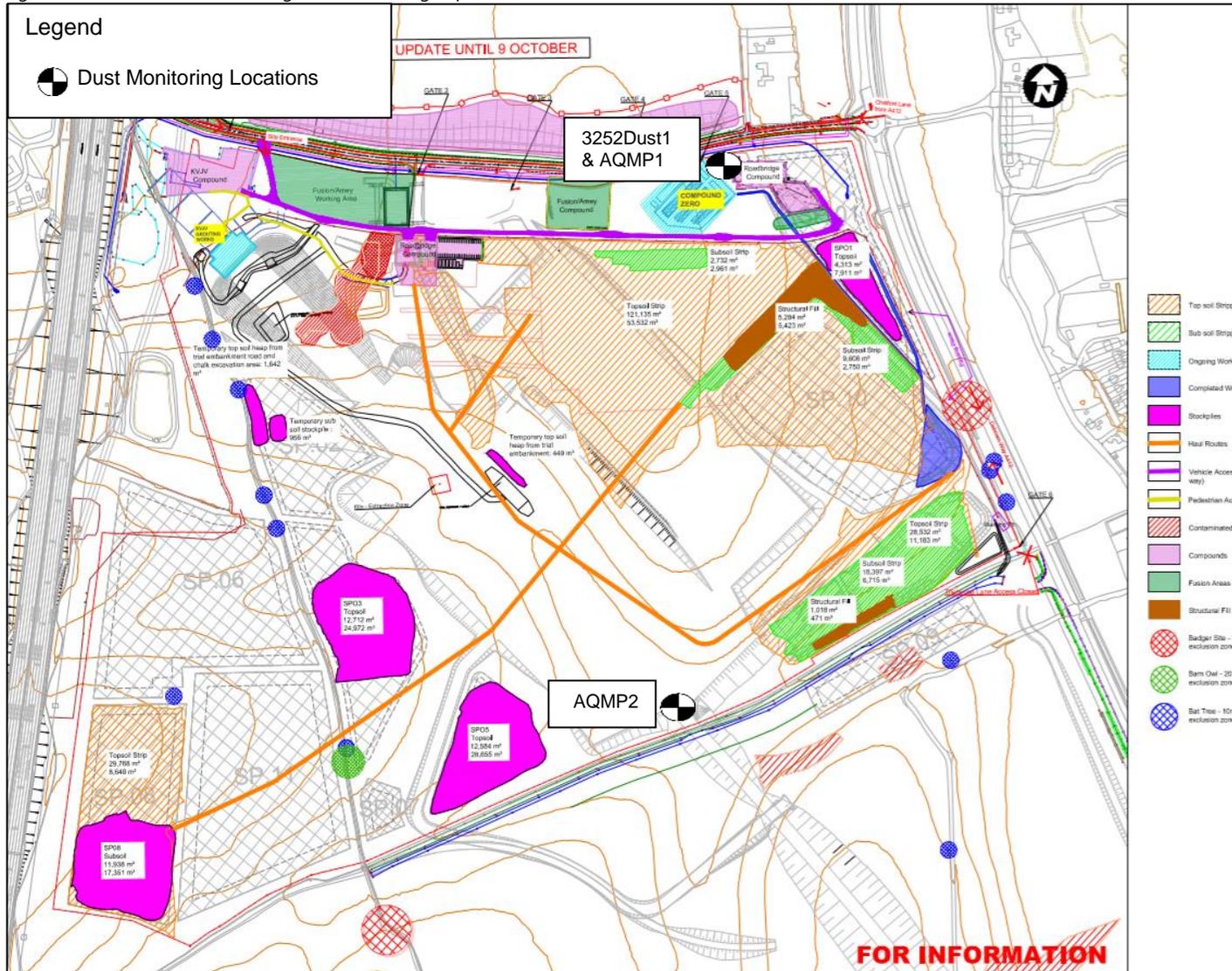
- 1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of dust monitoring undertaken in the Three Rivers District Council (TRDC) during September 2019.
- 1.1.2 Figure 1 in Appendix A indicates the current worksites together with the dust monitoring locations for September 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](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 TRDC during July 2017 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
  - Preconstruction works at the Chiltern Tunnel South Portal Compound including mobilisations, installation of platforms for grouting works, drilling and grouting, removal of topsoil stockpile, topsoil stripping and stockpiling for the temporary pond and amenities as well as subsoil stripping and stockpiling for the temporary pond.
- 1.1.5 Three (3) dust monitors are installed around worksites, where earthworks, construction and trackout activities are underway. These sites returned low and medium dust risk rating (for works currently active on site). Monitor 3252Dust1 and AQMP1 were co-located during the handover period of monitoring responsibilities between contractors.
- 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 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 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 One dust trigger alert was recorded at AQMP2 during the monitoring period (September 2019), details of the trigger are presented in Appendix B, Table 2. AQMP1 and AQMP2 were installed on 5<sup>th</sup> September, since which have provided 100% data capture.
- 1.1.9 There were no complaints, relating to dust or air quality, received during the monitoring period (September 2019).

# Appendix A – Worksites and Monitoring Locations

Figure 1: Worksites and Monitoring locations during September 2019



## Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and September 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 <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 (%)
3252Dust1	502865, 191462	On the northern boundary of the site with Chalfont Lane	L	Yes	No	11.5	1.4	116.7	0	100.0%
AQMP1	502885, 191488	On the northern boundary of the site with Chalfont Lane	M	Yes	Yes	15.7	2.1	91.1	0	84.9%
AQMP2	502872, 190833	On the southern boundary of the site with Denham Way	M	Yes	Yes	16.0	1.3	243.8	1	84.3%

Table 2: Summary of exceedances during period (September 2019)

Period exceeding trigger level	Worksite reference	Monitoring site ID	Complaint reference number (if applicable)	Reason	Resolution
08/09/2019 21:00 – 22:00 hrs	502885, 191488	AQMP2	n/a	Trigger occurred out of working hours, while no works were being undertaken, and therefore not considered to be associated with HS <sub>2</sub> works.	Good housekeeping measures to be continued on site, in line with the Code of Construction Practise.

Figure 2: Construction dust 1-hour mean indicative PM<sub>10</sub> concentration for dust monitors

