October 2023



Air Quality and Dust Monitoring Monthly Report - October 2023

Cherwell District Council

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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 in the Cherwell District Council (CDC) during October 2023.
- 1.1.2 Figure 1 in Appendix A presents the current worksites together with the dust monitoring locations for October 2023.
- 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 worksites, as presented in Appendix A, Figure 1, include:

A4421 Overbridge

- Landscape bunds construction
- Crane Platform Creation
- Local Excavation for A4421
- Dewatering
- Placing concrete and type 1 stone
- Earth Bund Creation
- Subsoil Stockpile Relocation

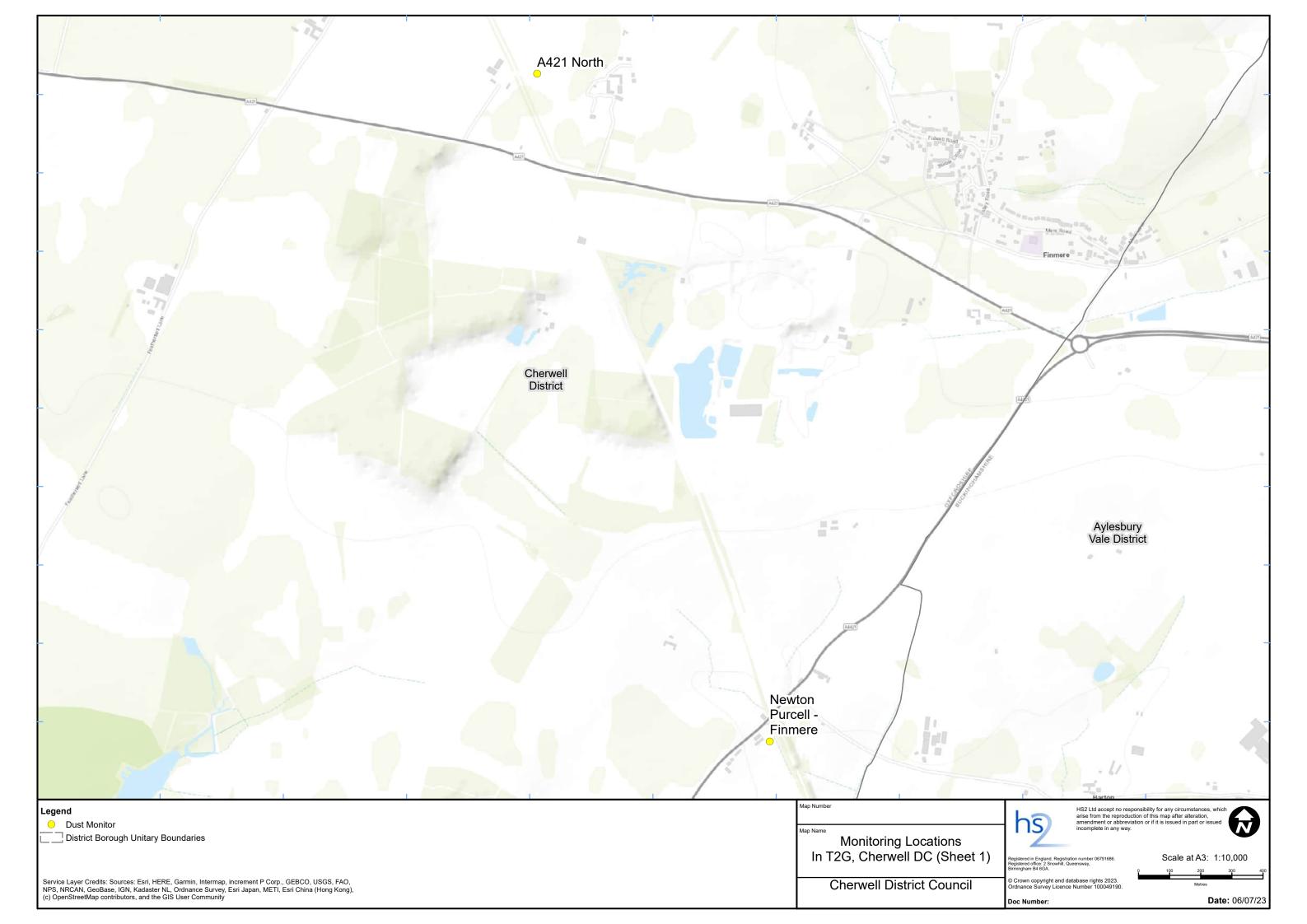
A421 Overbridge worksite

- Fill for the working platform
- Deliveries
- Construction of the west abutment pile cap
- Construction of east and west upstand walls
- Central excavation of the central pier piles ongoing.
- Tibbets Barn was removed
- Start of the east wingwalls construction.
- Concrete finishes of the above elements
- Steel fixing
- scaffold installation
- formwork installation
- concrete pour
- Completion of the east approach slab
- Steel fixing start
- Waterproofing of the abutment pile cap and approach slab sides

- 1.1.5 Two (2) dust monitors are installed around these worksites, where works are underway. These sites returned a medium dust risk rating.
- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor presented 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 mitigation.
- 1.1.7 The trigger level for PM_{10} concentrations of 190 μ g/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 No (0) dust trigger alerts were recorded during the monitoring period (October 2023).
- 1.1.9 Data capture was below 90% for multiple monitors due to a faulty monitor connection at the A421 North monitor. The Newton Purcell Finmere monitor runs off a solar panel so weather conditions meant there were power supply problems.
- 1.1.10 There were no (0) complaints received during the reporting period (October 2023).

Appendix A - Worksites and Monitoring Locations

Figure 1: Worksite and Monitoring locations within CDC



Appendix B - Dust Monitoring Results

Table 1: Dust Monitoring Locations and 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/m³)	Minimum 1- hour PM ₁₀ concentration (μg/m³)	Maximum 1- hour PM ₁₀ concentration (μg/m³)	Number of 1- hour periods exceeding trigger level of 190 µg/m³	1-hour data capture (%)
Newton Purcell - Finmere	462904, 231144	Site boundary adjacent property on A4421	М	Yes	Υ	7.0	1.0	70.0	0	85.9
A421 North	462156, 233290	A421	М	Yes	Υ	6.2	1.0	36.0	0	70.3

Figure 2: Continuous dust 1-hour mean indicative PM₁₀ concentration for all monitors

