

Air Quality and Dust Monitoring Monthly Report – September 2023

Cherwell 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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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 September 2023.
- 1.1.2 Figure 1 in Appendix A presents the current worksite together with the dust monitoring location for September 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

- Class 4 movements;
- Crane platform creation;
- HR and SAR diversion;
- Local excavation;
- Dewatering; and
- Landscape Bunds.

A421 Overbridge worksite

- Fill for structures;
- Blinding pour for west abutment pile cap completed;
- Construction of the east approach slab completed;
- Central excavation of the central pier piles commenced and is ongoing;
- Steel fixing;
- Scaffold installation;
- Formwork installation;
- Concrete pour;
- Pile cropping;
- Blinding pour; and
- Local excavation of the west abutment to allow construction of the pile cap.

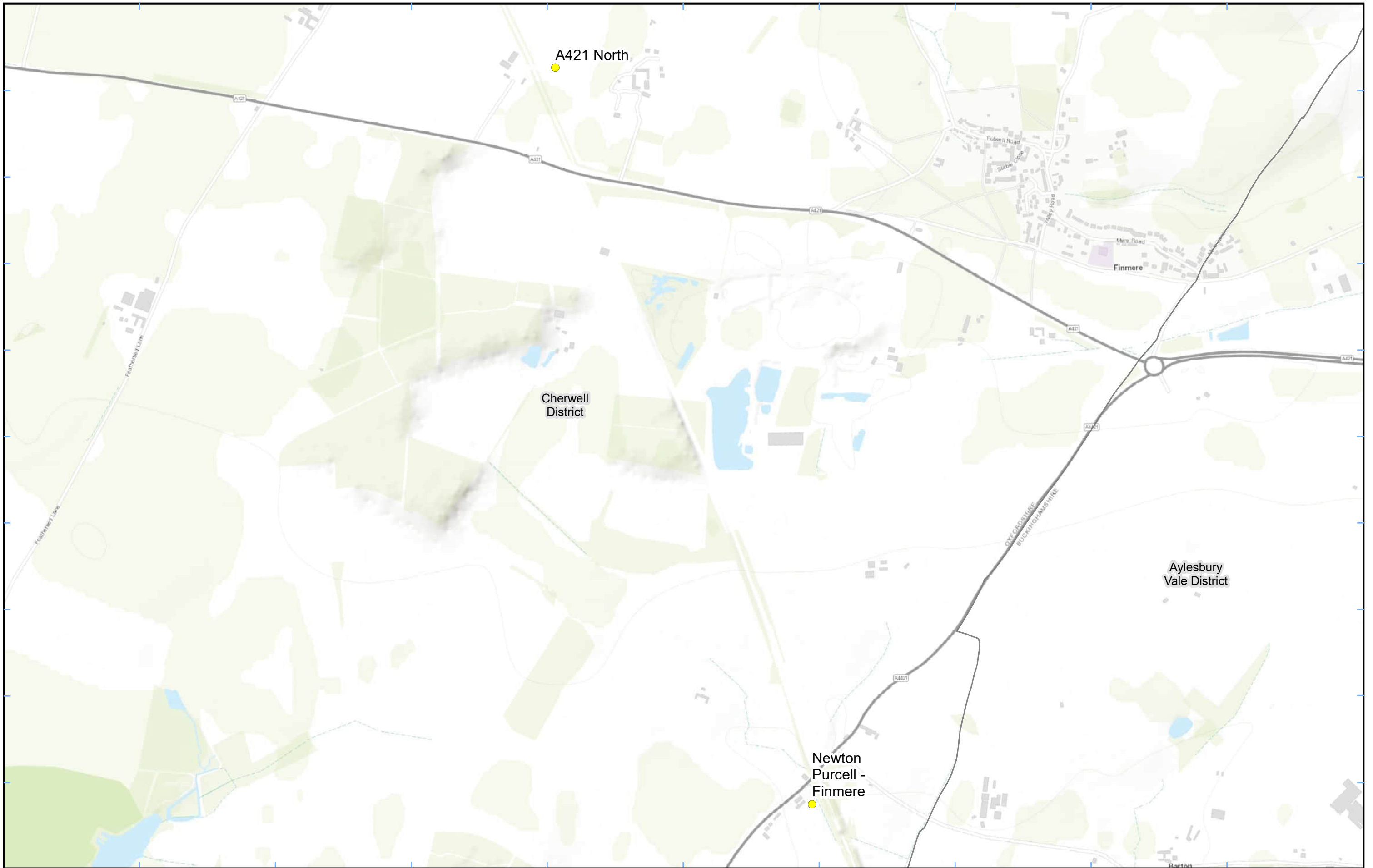
- 1.1.5 Two (2) dust monitors are installed at the worksite, where works are underway. These sites returned a medium dust risk rating.

- 1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with a line chart of monthly data from the 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 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 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 3. All other results were in line with expected ranges.
- 1.1.9 Data capture was below 90% at the A421 North worksite due to a faulty connection. This issue has since been resolved.
- 1.1.10 No (0) complaints were received during the reporting period (September 2023).

Appendix A –Monitoring Locations

Figure 1: Worksite and Monitoring locations within CDC





Legend

- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name
**Monitoring Locations
In T2G, Cherwell DC (Sheet 1)**

Cherwell District Council

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Scale at A3: 1:10,000

0 100 200 300 400
Metres

Doc Number:

Date: 06/07/23

Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and September 2023 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	1-hour data capture (%)
Newton Purcell - Finmere	462904, 231144	Site boundary adjacent property on A4421	M	Yes	Y	16.6	1.0	2785.0	4	99.0
A421 North	462156, 233290	A421	M	Yes	Y	7.6	1.0	44.0	0	40.0

Table 2: Summary of exceedances during period (September 2023)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
Newton Purcell - Finmere	21/09/23: 03:00 - 03:59; 577 µg m ⁻³ 04:00 - 04:59; 463 µg m ⁻³ 05:00 - 05:59; 2785 µg m ⁻³ 07:00 - 07:59; 1428 µg m ⁻³	Outside working hours. No works were carried out during this time.	N/A

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

