

Air Quality and Dust Monitoring Monthly Report – January 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.

High Speed Two (HS2) Limited,
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

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

- Dismantling and demolition of the bridge structure
- Ongoing haul road repairs
- Internal drainage construction and maintenance
- Ditch diversion for Newton Purcell Culvert
- De-veg and preparation for platform extension
- Pond excavation

A4421 works

- Newton Purcell ditch diversion
- Barton Hartshorn diversion
- HR installation (including moving stock pile)
- SAR Diversion
- Internal drainage ponds connection
- East abutment backfill
- Moving stock piles for utilities
- Pond lining
- Excavating topsoil & install sub base
- Gas slab preparation
- Internal ditches
- Overflow ditches

A421 Bridge

- Piling (concrete and drilling)
- Platform formation (stone placement and compaction)

A421 compound

- Drainage and ducting installation
- Stone installation
- Excavations
- Cabins fit out
- Platform build-up and prep for surfacing works
- Kerb installation
- M&E ducting and lamppost foundation installation up to 80% complete

- 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 line charts 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 No (0) dust trigger alerts were recorded during the monitoring period (January 2023).
- 1.1.9 Data capture was below 90% for multiple monitors due to all monitors being under maintenance causing intermittent data recording.
- 1.1.10 No (0) complaints were received during the reporting period.

Appendix A –Monitoring Locations


Figure 1: Worksite and Monitoring locations within the CDC



Legend
 ● Dust Monitor
 □ District Borough Unitary Boundaries

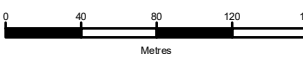
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Map Number
 Map Name
**Monitoring Locations
 In T2G, Cherwell DC (Sheet 1)**
 Cherwell District Council


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Appendix B – Dust Monitoring Results

Table 1: Dust monitoring locations and January 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 | Yes | 10.7 | 1.0 | 104.0 | 0 | 53.5 |
| A421 North | 462156, 233290 | A421 | M | Yes | Yes | 8.7 | 1.0 | 53.0 | 0 | 83.5 |

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

