

Air Quality and Dust Monitoring Monthly Report – October 2023

West Northamptonshire District 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 in the West Northamptonshire District (WNDC) during October 2023.
- 1.1.2 Figure 1 and Figure 2 in Appendix A present the current worksites together with the dust monitoring locations.
- 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 and Figure 2, include:

Twyford to Greatworth

Radstone and Hall Farm

- Topsoil Stripping
- Stockpile management
- Bulk Excavation
- Site Access Road/ Haul Road use and maintenance
- Drainage
- Piling works and concreting at Radstone Road

Greatworth Hall

- Topsoil stripping
- Stockpile management
- Utilisation & maintenance of Site Access Road (SAR) and Haul Road.
- Crushing and screening
- Bulk excavation
- Drainage

Greatworth To Southam

Chipping Warden – RAMAC

- Chipping warden Green tunnel PCC erection
- Green Tunnel maintenance for PCC erection
- Chipping warden green tunnel – Structural backfill
- Chipping Warden earthworks Soil Swap area

- Bulk earthworks
- Site Access Road maintenance
- Utilisation of haulage road for moving material
- Chipping warden batching plant
- General maintenance
- Stockpile management
- Vegetation maintenance
- Site Access Road maintenance
- Compound maintenance
- Water management
- Ditch maintenance
- Plant maintenance
- Material processing

CW village

- Chipping warden Green tunnel PCC erection
- Green Tunnel maintenance for PCC erection
- Chipping warden green tunnel – Structural backfill
- Chipping warden green tunnel – Waterproofing
- Chipping Warden earthworks Soil Swap area
- Bulk earthworks
- Site Access Road maintenance
- Utilisation of haulage road for moving material
- Chipping warden batching plant
- General maintenance
- Stockpile management
- Vegetation maintenance
- Site Access Road maintenance
- Compound maintenance
- Water management
- Ditch maintenance
- Plant maintenance
- Material processing

Lower Boddington

- Topsoil stripping
- Claydon road overbridge
- Stockpile management
- Site Access Road maintenance
- Utilisation of haulage road for moving material
- Drainage and temporary ponds
- Vegetation maintenance
- Highfurlong brook viaduct
- Bulk excavation – cutting

- Claydon road overbridge
- Claydon road highways
- Lower Boddington Landscape fill
- Water management (Checking pumps)
- Ditch maintenance

Fir Tree Nursery

- Topsoil stripping
- Stockpile management
- Site Access Road maintenance
- Utilisation of haulage road for moving material
- Drainage and temporary ponds
- Vegetation maintenance
- Site access road maintenance
- Water management
- Ditch maintenance
- Nursery site feeder canal
- Boddington highways

Greatworth Village

- Stockpile management
- Site Access Road maintenance
- Utilisation of haulage road formoving material
- Drainage and temporary ponds
- Bulk earthworks
- AG09 and AG10 overbridges
- HDD works (Culworth Grounds)
- Permanent culverts
- Greatworth Green Tunnel works

Lower Thorpe

- Stockpile management
- Site Access Road maintenance
- Utilisation of haulage road formoving material
- Drainage and temporary ponds
- Bulk earthworks
- Lower Thorpe Viaduct
- AG09 and AG10 overbridges
- HDD works (Culworth Grounds)
- Permanent culverts
- Greatworth Green Tunnel works

1.1.5 Nine (9) 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 3. 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 (October 2023).
- 1.1.9 Data capture was below 90% for multiple monitors. Lower Thorpe monitor was due to a fault with the PT10 solar component. Greatworth Village monitor was due to a fault being found with the noise monitor so it was retrieved for laboratory calibration. CW Village monitor was due to the noise monitor being retrieved for laboratory calibration. The Radstone monitor had a battery fault. Greatworth Hall had a fault in the monitor. This has subsequently been fixed.
- 1.1.10 There were no (0) complaints received during the reporting period (October 2023).

Appendix A – Worksites and Monitoring Locations

Figures 1 and 2: Worksites and Monitoring Locations within WNDC



Legend
 ● Dust Monitor
 - - - District Borough Unitary Boundaries

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Map Number
 Map Name
**Monitoring Locations
 In WNDC (Sheet 1)**
 West Northamptonshire Council

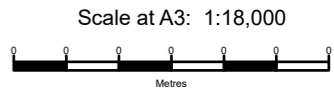


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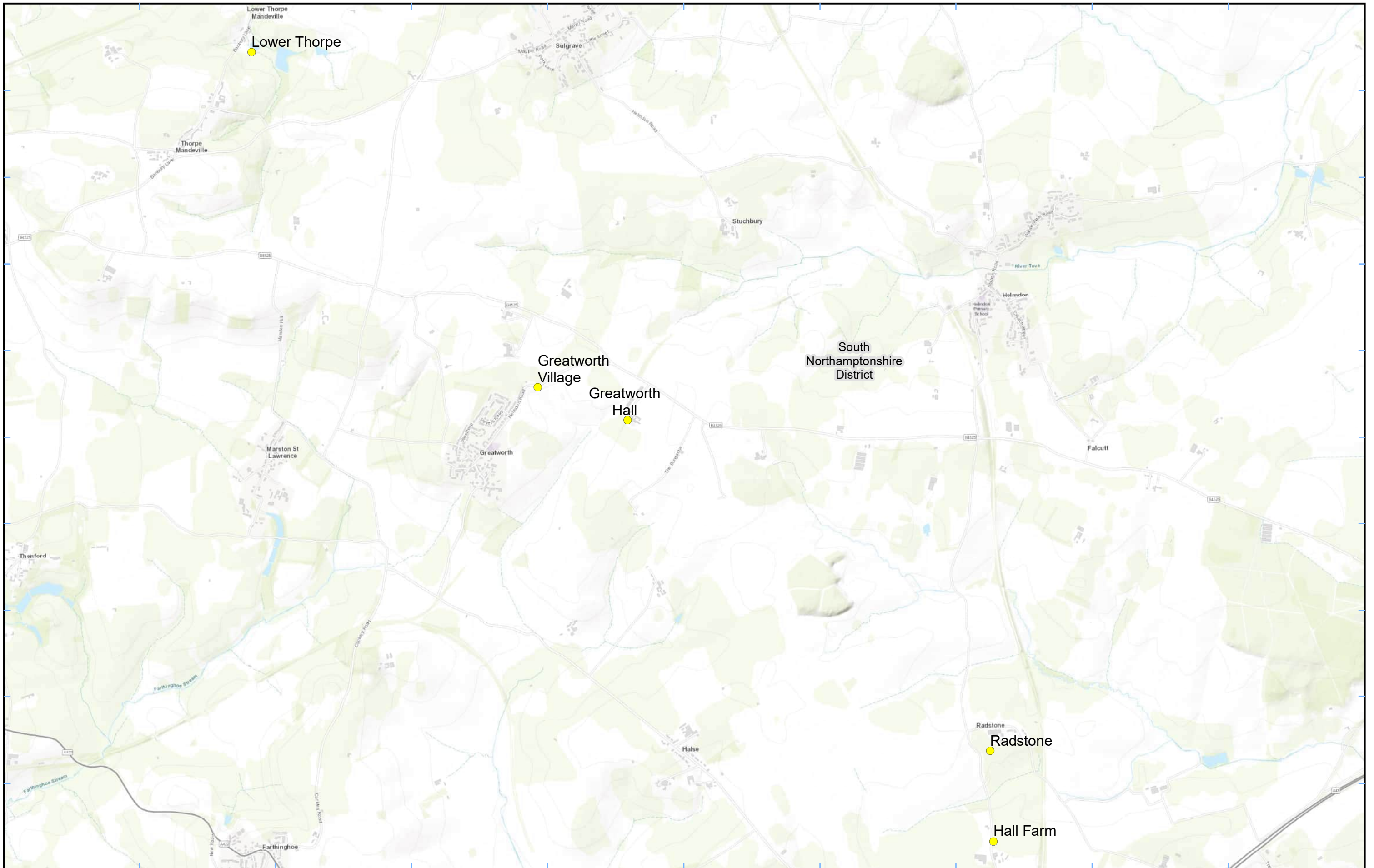
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Legend

- Dust
- District Borough Unitary Boundaries

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Map Number

Map Name
**Monitoring Locations
In WNDC (Sheet 2)**

West Northamptonshire Council

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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/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 (%)
Chipping Warden – RAMAC	449600, 249755	Chipping Warden, West Northamptonshire	M	Yes	Yes	5.9	1.0	21.0	0	94.6
CW Village	450000, 249367	Chipping Warden, West Northamptonshire	M	Yes	Yes	6.2	1.0	30.0	0	60.2
Lower Boddington	447997, 251865	Lower Boddington, West Northamptonshire	M	Yes	Yes	5.8	1.0	22.0	0	92.9
Fir Tree Nursery	447283, 252421	Fir Tree Nursery, West Northamptonshire	M	Yes	Yes	5.5	1.0	22.0	0	93.3
Radstone	458712, 240454	Radstone Road, Brackley, West Northamptonshire	M	Yes	Yes	6.4	1.0	27.0	0	14.7
Hall Farm	458734, 239823	Hall Farm, Radstone Road	M	Yes	Yes	6.8	1.0	26.0	0	93.4
Greatworth Village	455551, 242992	Greatworth Village, Helmdon Road,	M	Yes	Yes	6.2	1.0	25.0	0	77.0
Lower Thorpe	453553, 245334	Banbury Lane, Lower Thorpe	M	Yes	Yes	5.4	1.0	43.0	0	62.6
Greatworth Hall	456179, 242763	Greatworth Hall, Greatworth	M	Yes	Yes	6.3	1.0	25.0	0	69.1

Figure 3: Continuous dust 1-hour mean indicative PM₁₀ concentration for all monitors



