HS2

April 2026

Construction noise and vibration Monthly Report – April 2026

Birmingham City Council

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Non-Technical Summary

This Noise and Vibration Monitoring Report fulfils HS2 Limited's commitment detailed in the Environmental Minimum Requirements (EMRs), Annex 1, Code of Construction Practice, to present the results of noise and vibration monitoring carried out within Birmingham City Council during the month of Apr 2026.

Within this period monitoring was undertaken at the following worksites:

- Washwood Heath Depot worksite (ref.: WWHD), where haul road operation and maintenance activities, material deliveries, drainage line installation works, stockpile management and crushing activities, landscaping works and tarmac batching plant operations were underway.

- Twisted Oak Stables worksite (ref.: TOS), where material deliveries and movements, site maintenance activities, road sweeping & dust suppression works, mechanical workshop operation, muck away operations, operation of tunnel boring machine material store, aerodynamic structure & cross passage construction and tunnel strip out, ground treatment and batching plant operations were underway.

- Saltley Viaduct Satellite worksite (ref.: SVS), where reinforced concrete works, steel pier welding and cutting works, pretension bar stressing and grouting, platform and steel column installation works, bride deck pre-assembly and welding, and bridge launching activities were underway.

- Lawley Middleway worksite (ref.: LMW), where material deliveries, road sweeping & dust suppression activities, scaffolding installation and welding works were underway

- Curzon Street Station worksite (ref.: CSS), where construction of piles caps, excavation and movement of material within site & off-site, pile cropping, concrete pours and vehicle movements were underway.

- Curzon Street worksite (ref.: CS), where haul road operation and maintenance works, de-vegetation works, stockpile management and crushing activities, landscaping works, batching plant operations, bridge deck temporary works, pier demolition works, utilities work and bridge drainage works were underway.

The HS2 threshold levels for significant noise impacts, which are defined in Information Paper E23 (https://www.gov.uk/government/publications/hs2-information-papersenvironment) were exceeded four (4) times during the reporting period.

There were no exceedances of trigger levels as defined in section 61 consents during the reporting period at any monitoring position.

No complaints were received during the monitoring period.

Abbreviations and Descriptions

The abbreviations, descriptions and project terminology used within this report can be found in Table 1.

Table 1: Table of Abbreviations

Acronym/Term	Definition
LAeq,T	See equivalent continuous sound pressure level.
Ambient Sound	A description of the all-encompassing sound at a given location and time which will include sound from many sources near and far. Ambient sound can be quantified in terms of the equivalent continuous sound pressure level, LpAeq,T
Decibel(s), or dB	Between the quietest audible sound and the loudest tolerable sound there is a million to one ratio in sound pressure (measured in Pascal (Pa)). Because of this wide range, a level scale called the decibel (dB) scale, based on a logarithmic ratio, is used in sound measurement. Audibility of sound covers a range of approximately 0-140dB.
Decibel(s) A-weighted, or dB(A)	The human ear system does not respond uniformly to sound across the detectable frequency range and consequently instrumentation used to measure sound is weighted to represent the performance of the ear. This is known as the 'A weighting' and is written as 'dB(A)'.
Equivalent continuous sound pressure level, or LAeq,T	An index used internationally for the assessment of environmental sound impacts. It is defined as the notional unchanging level that would, over a given period of time (T), deliver the same sound energy as the actual time-varying sound over the same period. Hence fluctuating sound levels can be described in terms of an equivalent single figure value, typically expressed as a decibel level.
Exclusion of data	Measurement of noise levels can be affected by weather conditions such as prolonged periods of rain, winds speeds higher than 5m/s and snow/ice ground cover. Noise levels measured during these periods are considered not representative of normal noise conditions at the site and, for the purposes of this report, are excluded from the assessment of exceedances and calculation of typical noise levels and are also greyed out in charts. Identifiable incongruous noise and vibration events not attributable to HS2 construction noise are also excluded.
Façade	A facade noise level is the noise level 1m in front of a large reflecting surface. The effect of reflection, is to produce a slightly higher (typically +2.5 to +3 dB) sound level than it would be if the reflecting surface was not there.
Free-field	A free-field noise level is the noise level measured at a location where no reflective surfaces, other than the ground, lies within 3.5 metres of the microphone position.
LOAEL	Lowest Observed Adverse Effect Level - the level above which adverse effects on health and quality of life can be detected.
Peak particle velocity, or PPV	Instantaneous maximum velocity reached by a vibrating element as it oscillates about its rest position. The PPV is a simple indicator of perceptibility and risk of damage to structures due to vibration. It is usually measured in mm/s.
SOAEL	Significant Observed Adverse Effect Level - the level above which significant adverse effects on health and quality of life occur.

Sound pressure level	The parameter by which sound levels are measured in air. It is measured in decibels. The threshold of hearing has been set at 0dB, while the threshold of pain is approximately 120dB. Normal speech is approximately 60dB at a distance of 1 metre and a change of 3dB in a time varying sound signal is commonly regarded as being just detectable. A change of 10dB is subjectively twice, or half, as loud.
Vibration dose value, or VDV	An index used to evaluate human exposure to vibration in buildings. While the PPV provides information regarding the magnitude of single vibration events, the VDV provides a measure of the total vibration experienced over a specified period of time (typically 16h daytime and 8h night-time). It takes into account the magnitude, the number and the duration of vibration events and can be used to quantify exposure to continuous, impulsive, occasional and intermittent vibration. The vibration dose value is measured in $m/s^{1.75}$.

1 Introduction

1.1.1 HS2 is required to undertake noise (and vibration) monitoring as necessary to comply with the requirements of the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, including specifically Annex 1: Code of Construction Practice, in addition to any monitoring requirements arising from conditions imposed through consents under Section 61 of the Control of Pollution Act, 1974 or through Undertakings & Assurances given to third parties. Such monitoring may be undertaken for the following purposes:

- monitoring the impact of construction works;
- to investigate complaints, incidents and exceedance of trigger levels; or
- monitoring the effectiveness of noise and vibration control measures.

Monitoring data and interpretive reports are to be provided to each relevant local authority on a monthly basis and shall include a summary of the construction activities occurring, the data recorded over the monitoring period, any complaints received, any periods in exceedance of agreed trigger levels, the results of any investigations and any actions taken or mitigation measures implemented. This report provides noise data, and interpretation thereof, for monitoring carried out by HS2 within the Birmingham City Council (BCC) area for the period 1-30 April 2026.

1.1.2 Active construction sites in the local authority area during this period include:

- Washwood Heath, Ref.: WWHD (See Plan 3 in Appendix A), where work activities included
    - Haul road operation and maintenance
    - Material deliveries
    - Drainage line installation
    - Stockpile management and crushing activities
    - Landscaping works
    - Tarmac batching plant operations
- Twisted Oak Stables worksite, Ref.: TOS, (See Plan 4 in Appendix A), where work activities included:
    - Material deliveries and movements
      Site maintenance
    - Road sweeping & dust suppression
    - Mechanical workshop operation
    - Muck away operations
    - Operation of tunnel boring machine material store
    - Aerodynamic structure & cross passage construction
    - Tunnel strip out - breaking concrete rings (including ground treatment and batching plant operation)
- Saltley Viaduct Satellite worksite, ref.: SVS (See Plan 2 in Appendix A), where work activities included:
    - Reinforced concrete works
    - Steel pier welding and cutting works
    - Pretension bar stressing and grouting
    - Platform and steel column installation works
    - Bride deck pre-assembly and welding

    - Bridge launching activities including installation of temporary bearings and temporary works and removal of welding shelters
- Lawley Middleway worksite, ref.: LMW (See Plan 1 in Appendix A), where work activities included:
    - Material deliveries
    - Road sweeping & dust suppression
    - Scaffolding installation
    - Welding works
- Curzon Street Station worksite, ref.: CSS (See Plan 1 in Appendix A), where work activities included:
    - Construction of piles caps
    - Excavation and movement of material within site & off-site
    - Pile cropping
    - Concrete pours
    - Vehicle movements
- Curzon Street, ref.: CS (See Plan 1 in Appendix A), where work activities included:
    - Haul road operation and maintenance
    - De-vegetation works
    - Stockpile management and crushing activities
    - Landscaping works
    - Tarmac batching plant operations, including delivery of aggregates, operating plant and concrete wagons
    - Bridge deck temporary works
    - Pier demolition works
    - Underground utilities work (manhole and catchpit works)
    - Bridge drainage works

1.1.3 The applicable standards, guidance, and monitoring methodology is outlined in the construction noise and vibration monitoring methodology report which can be found at the following location https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2. Noise and vibration monitoring reports for previous months can also be found at this location.

1.2 Measurement Locations

1.2.1 10 noise and 4 vibration monitoring installations were active in April in the Birmingham City Council area. Tables 2a and 2b summarise the position of noise and vibration monitoring installations within the Birmingham City Council area in April 2026.

1.2.2 Maps showing the position of noise and vibration monitoring installations are presented in Appendix B.

Table 2a: Noise Monitoring Locations

Worksite Reference	Measurement Reference	Address
CSS	CSS-N1	The Hive / Clayton
	CSS-N2	Moor Street Queensway
CS	CS-N1	BBV Curzon Street Compound, Curzon Street

LMW	LMW-N1	(South of) The Compass, 1 Vauxhall Rd
SVS	SVS-N1	Duddeston Mill Road, Saltley Business Park Area, Digbeth
TOS	TOS-N1	Water Orton Road, Sutton Coldfield, Birmingham
	TOS-N5	12 Plank Lane, Water Orton, Birmingham
WWHD	WWHD-N2	(west of) 93 Common Lane, Birmingham
	WWHD-N3	(north of) 152 Warren Road, Birmingham
	WWHD-N6	(west of) 114 Drews Lane, Birmingham

Table 2b: Vibration Monitoring Locations

Worksite Reference	Measurement Reference	Address
TOS	TOS-V1	Water Orton Road, Sutton Coldfield, Birmingham
WWHD	WWHD-V13	(north west of) 114 Drews Lane, Birmingham
	WWHD-V2	(north of) 93 Common Lane, Birmingham
	WWHD-V3	(north of) 152 Warren Road, Birmingham

2 Summary of Results

2.1 Summary of Measured Noise and Vibration Levels

2.1.1 Table 3 presents a summary of the measured noise levels at each monitoring location over the reporting period. The LAeq,T is presented for each of the relevant time periods averaged over the calendar month, along with the highest single period LAeq,T that was found to occur within the month.

Table 3: Summary of Measured dB LAeq Data over the Monitoring Period

Worksite Reference.	Measurement Reference	Site Address	Free-Field or Façade Measurement	Weekday Average LAeq,T (Highest Day LAeq,T)					Saturday Average LAeq,T (Highest Day LAeq,T)					Sunday / Public Holiday LAeq,T (Highest Day LAeq,T)	
				0700 - 0800	0800 - 1800	1800 - 1900	1900 - 2200	2200 - 0700	0700 - 0800	0800 - 1300	1300 - 1400	1400 - 2200	2200 - 0700	0700 - 2200	2200 - 0700
CS	CS-N1	BBV Curzon Street Compound, Curzon Street, Birmingham	Free field	63.7 (65.7)	65.2 (68.0)	63.8 (66.7)	62.4 (67.5)	59.3 (70.4)	59.0 (60.3)	60.5 (61.2)	61.6 (62.0)	62.2 (65.8)	59.5 (67.1)	60.5 (65.6)	59.2 (67.7)
LMW	LMW-N1	(South of) The Compass, 1 Vauxhall Rd, Birmingham	Free field	65.2 (67.5)	64.2 (65.5)	63.6 (65.4)	63.9 (66.8)	62.7 (68.3)	62.8 (63.7)	63.8 (64.6)	63.5 (65.0)	64.4 (67.5)	63.2 (67.0)	63.8 (66.1)	62.7 (66.7)
SVS	SVS-N1	Duddeston Mill Road, Saltley Business Park Area, Digbeth	Free field	65.5 (75.4)	68.3 (72.6)	64.4 (65.8)	63.5 (70.0)	60.1 (72.3)	59.7 (61.3)	62.9 (64.8)	64.5 (66.7)	64.9 (68.1)	59.3 (66.5)	63.7 (73.2)	59.8 (76.3)
TOS	TOS-N1	Water Orton Road, Sutton Coldfield, Birmingham	Free field	64.4 (69.6)	65.8 (68.8)	63.8 (67.1)	62.7 (67.8)	60.8 (68.0)	64.1 (66.1)	65.2 (67.3)	64.8 (68.6)	65.5 (69.5)	61.3 (67.4)	64.0 (69.2)	61.2 (65.9)
	TOS-N5	12 Plank Lane, Water Orton, Birmingham	Free field	63.3 (67.9)	68.5 (72.4)	62.1 (66.5)	60.5 (67.6)	59.3 (66.7)	64.0 (67.6)	67.6 (69.7)	67.5 (69.3)	63.9 (68.5)	60.0 (66.2)	63.4 (68.1)	59.9 (65.2)
WWHD	WWHD-N2	(west of) 93 Common Lane, Birmingham	Free field	54.6 (58.7)	55.9 (60.5)	50.9 (57.2)	52.0 (58.0)	51.3 (59.0)	51.6 (54.6)	51.1 (54.0)	49.4 (54.8)	51.1 (56.8)	50.4 (57.2)	50.4 (56.6)	51.2 (59.2)
	WWHD-N3	(north of) 152 Warren Road, Birmingham	Free field	58.0 (61.9)	59.6 (62.1)	50.2 (56.5)	51.0 (57.5)	52.7 (60.8)	54.3 (58.5)	53.5 (57.3)	49.4 (54.8)	50.0 (56.5)	52.8 (59.2)	51.0 (57.9)	51.8 (60.5)
	WWHD-N6	(west of) 114 Drews Lane, Birmingham	Free field	59.5 (63.0)	61.8 (65.2)	53.0 (58.2)	53.4 (58.6)	52.7 (62.0)	54.1 (57.4)	55.7 (58.5)	54.3 (57.3)	54.4 (58.3)	51.6 (57.5)	52.5 (56.9)	51.7 (59.4)
CSS	CSS-N1	The Hive / Clayton	Free field	55.1 (56.9)	64.2 (71.2)	57.7 (60.3)	56.7 (71.5)	53.5 (70.8)	54.1 (55.5)	58.3 (62.7)	55.8 (57.2)	56.4 (59.8)	53.7 (58.1)	54.7 (60.3)	56.5 (71.1)
	CSS-N2	Moor Street Queensway	Free field	54.7 (56.2)	68.3 (71.5)	60.5 (64.3)	56.4 (73.2)	53.3 (72.1)	53.8 (54.7)	62.5 (70.0)	57.1 (59.2)	56.1 (59.5)	53.9 (59.1)	54.2 (59.7)	56.3 (71.3)

2.1.2 Table 4: Summary of Measured PPV Data over the Monitoring Period presents a summary of the measured vibration levels at each monitoring location over the reporting period. The highest PPV measured during the monitoring along any axis is presented in the table.

Table 4: Summary of Measured PPV Data over the Monitoring Period

Worksite Reference	Measurement Reference	Monitor Address	Highest PPV measured in any axis, mm/s
TOS	TOS-V1	Water Orton Road, Sutton Coldfield, Birmingham	0.51 (X-axis)
WWHD	WWHD-V13	(north west of) 114 Drews Lane, Birmingham	1.91 (Z-axis)
	WWHD-V2	(north of) 93 Common Lane, Birmingham	0.90 (X-axis)
	WWHD-V3	(north of) 152 Warren Road, Birmingham	0.89 (X-axis)

2.1.3 Appendix C presents graphs of the noise and vibration monitoring data over the month for each of the measurement locations. Noise data presented consists of the hourly LAeq values and, where relevant, the LAeq,T values (where the time period T has been taken to be the averaging period as specified in Table 1 of HS2 Information Paper E23). Vibration data presented consist of hourly PPV values. The full data set for the monitoring equipment can be found at the following location: https://data.gov.uk/dataset/24542ae7-dd44-444f-b259-871c4cc43b5e/environmental-monitoring-data.

2.2 Exceedances of the LOAEL and SOAEL

2.2.1 The lowest observed adverse effect level (LOAEL) is defined in the Planning Practice Guidance – Noise (PPG) as the level above which "noise starts to cause small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life".

2.2.2 The significant observed adverse effect level (SOAEL) is defined in the 'Planning Practice Guidance – Noise' as the level above which "noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area."

2.2.3 HS2 Phase One Information Paper E23: Control of Construction Noise and Vibration sets out the LOAEL and SOAELs for construction noise.

2.2.4 Where construction noise levels exceed the SOAEL, relevant periods will be identified, and summary statistics provided in order to evaluate ongoing qualification for noise insulation and temporary rehousing.

2.2.5 Table 5 presents a summary of recorded exceedances of the LOAEL and SOAEL at each measurement location over the reporting period, including the number of exceedances during each time period.

Table 5: Summary of Exceedances of LOAEL and SOAEL

Worksite Reference	Measurement Reference	Site Address	Day (Weekday, Saturday, Sunday, Night)	Time period	Number of exceedances of LOAEL	Number of exceedances of SOAEL
CS	CS-N1	Curzon Street, Birmingham	Weekday	1900 - 2200	2	No exceedances
			Night	2200 - 0700	4	No exceedances
CSS	CSS-N1	Curzon Street, Birmingham	Weekday	0800 - 1800	3	No exceedances
			Saturday	1400 - 2200	4	No exceedances
			Sunday	0700 - 2200	6	No exceedances
	CSS-N2	Curzon Street, Birmingham	Weekday	0800 - 1800	20	No exceedances
				1800 - 1900	8	No exceedances
			Saturday	0800 - 1300	1	No exceedances
				1400 - 2200	4	No exceedances
			Sunday	0700 - 2200	4	No exceedances
LMW	LMW-N1	(South of) The Compass, 1 Vauxhall Rd, Birmingham	Weekday	0700 - 0800	2	No exceedances
SVS	SVS-N1	Duddeston Mill Road, Saltley	Weekday	0700 - 0800	1	No exceedances
				0800 - 1800	8	No exceedances
				1900 - 2200	3	No exceedances
			Saturday	1400 - 2200	1	No exceedances
			Sunday	0700 - 2200	4	No exceedances
			Night	2200 - 0700	3	No exceedances
TOS	TOS-N1	Water Orton Road, Sutton Coldfield, Birmingham	Weekday	0700 - 0800	1	No exceedances
				1900 - 2200	2	No exceedances
			Saturday	1300 - 1400	1	No exceedances
				1400 - 2200	3	No exceedances
			Sunday	0700 - 2200	4	No exceedances
			Night	2200 - 0700	16	4
	TOS-N5	12 Plank Lane, Water Orton, Birmingham	Weekday	1900 - 2200	1	No exceedances
			Saturday	1400 - 2200	2	No exceedances
			Sunday	0700 - 2200	4	No exceedances
			Night	2200 - 0700	28	No exceedances
WWHD	WWHD-N2	Common Lane, Birmingham	All days	All periods	No exceedances	No exceedances
	WWHD-N3	152 Warren Road	All days	All periods	No exceedances	No exceedances
	WWHD-N6	Drews Lane, Birmingham	Weekday	0700 - 0800	10	No exceedances
				0800 - 1800	3	No exceedances
			Saturday	1400 - 2200	2	No exceedances
			Sunday	0700 - 2200	5	No exceedances

2.2.6 There were exceedances of the LOAEL, during April 2026, due to HS2 construction works.

2.2.7 For the purpose of assessing eligibility for noise insulation or temporary rehousing, multiple exceedances of the SOAEL in a 24-hour period would be counted as a single exceedance during that day. Over the reporting period, the overall number of SOAEL exceedances at each measurement location is shown in Table 6 and may be lower than the total sum of individual exceedances reported in Table 5 for each location.

Table 6: Summary of Total Exceedances of SOAEL

Worksite Reference	Measurement Reference	Monitor Address	Total of SOAEL exceedances in the month
TOS	TOS-N1	Water Orton Road, Sutton Coldfield, Birmingham	4

2.3 Exceedances of Trigger Level

2.3.1 Table 7 provides a summary of exceedances of the S61 trigger noise levels determined to be due to HS2 related construction noise measured during the reporting period, along with the findings of any investigation.

Table 7: Summary of Exceedances of Trigger Levels

Complaint Reference Number (if applicable)	Worksite Reference	Date and Time Period	Identified Source	Results of Investigation (including noise monitoring results)	Actions Taken
-	-	-	-	-	-

2.4 Complaints

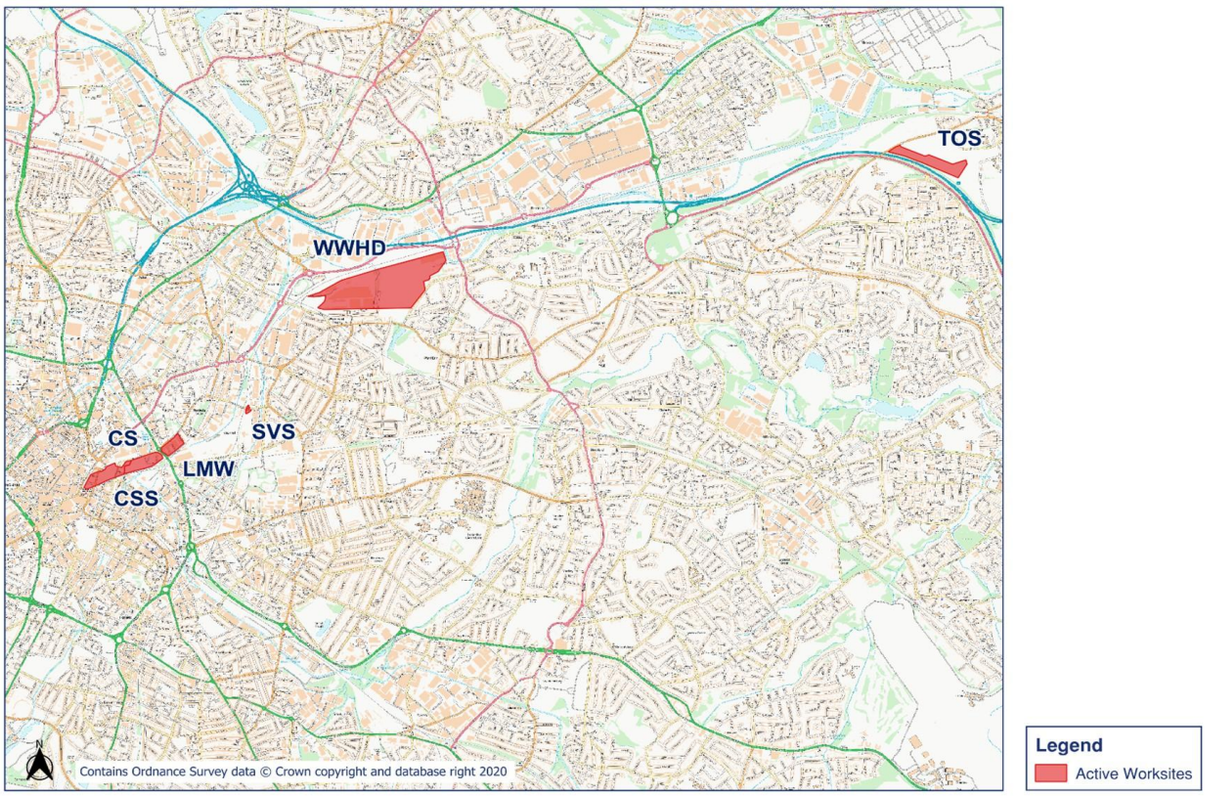
2.4.1 Table 8 provides a summary of complaint information related to noise and vibration received during the reporting period, along with the findings of any investigation.

Table 8: Summary of Complaints

Complaint Reference Number	Worksite Reference	Description of Complaint	Results of Investigation	Actions Taken
-	-	-	-	-

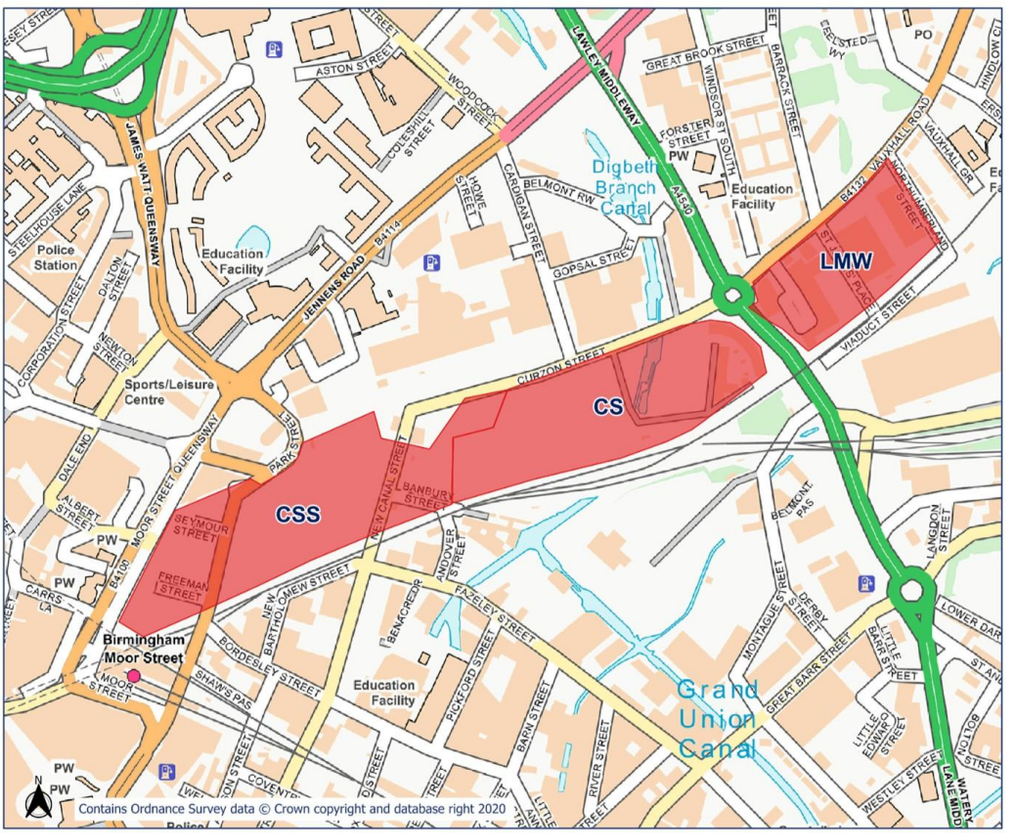
Appendix A Site Locations

HS2 **Worksite Identification Plan - Overview**



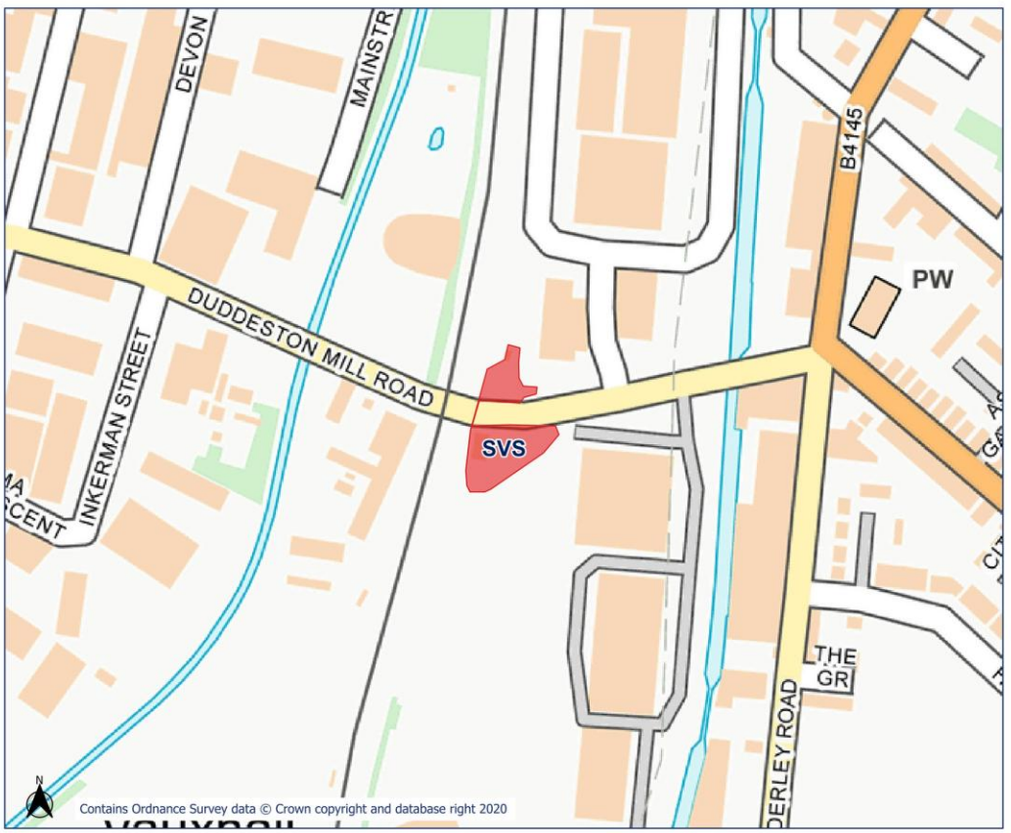
HS2

Worksite Identification Plan - 1



HS2

Worksite Identification Plan - 2



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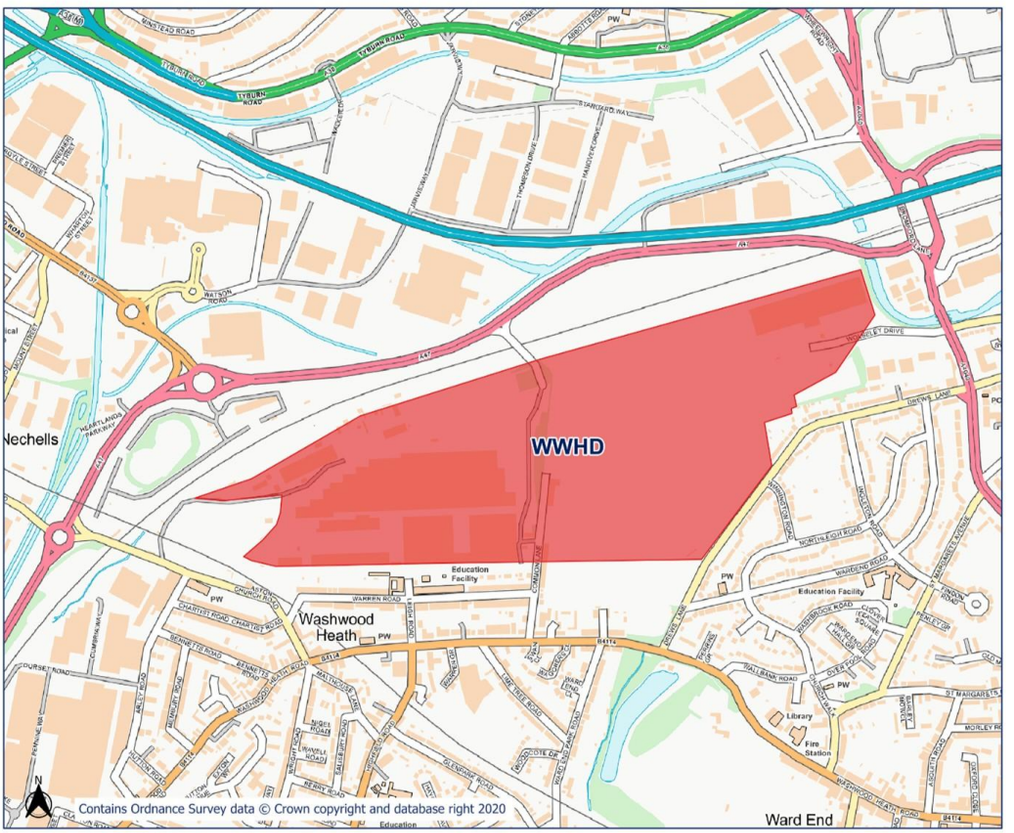

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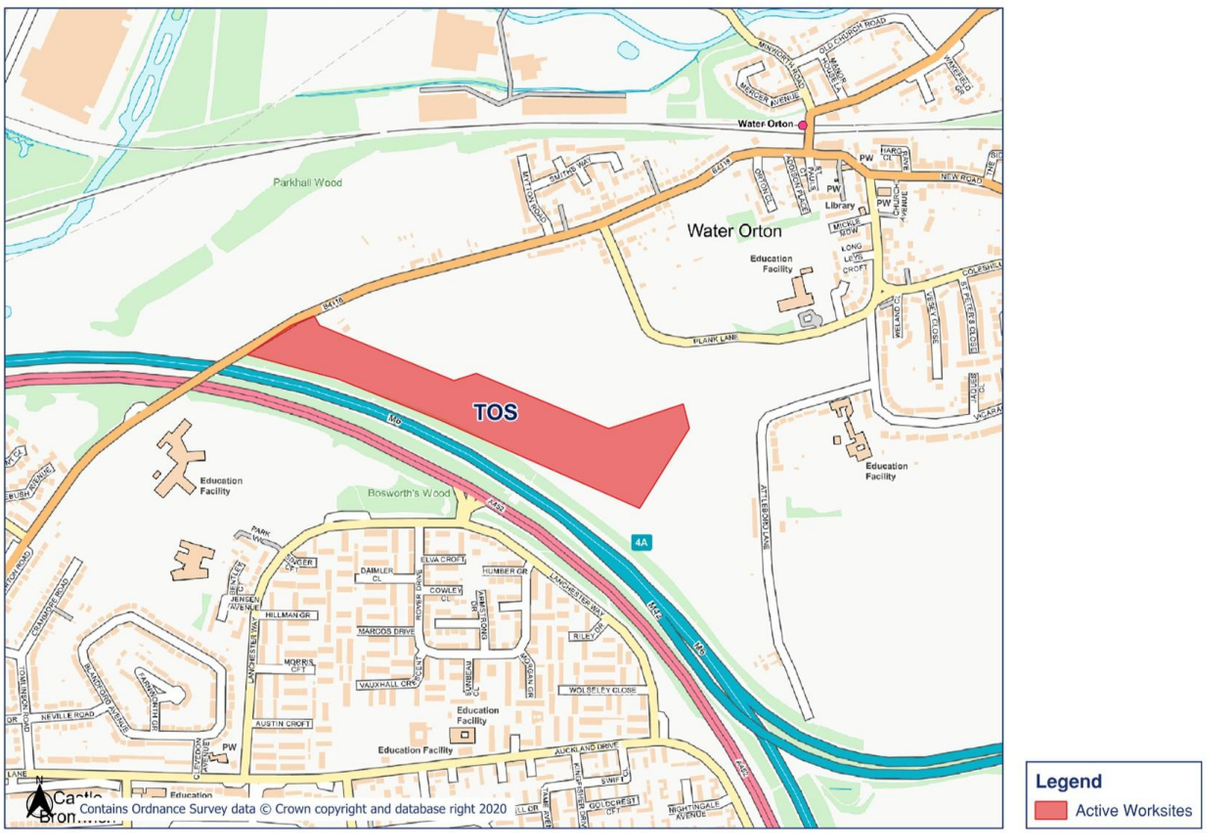
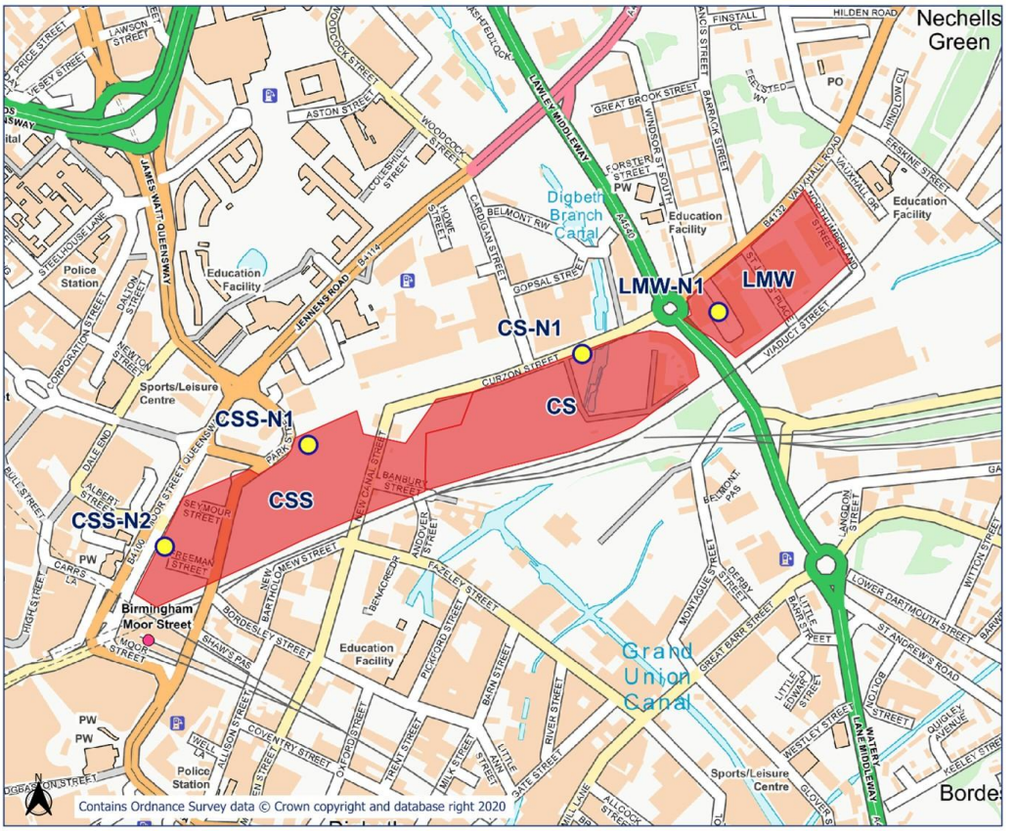
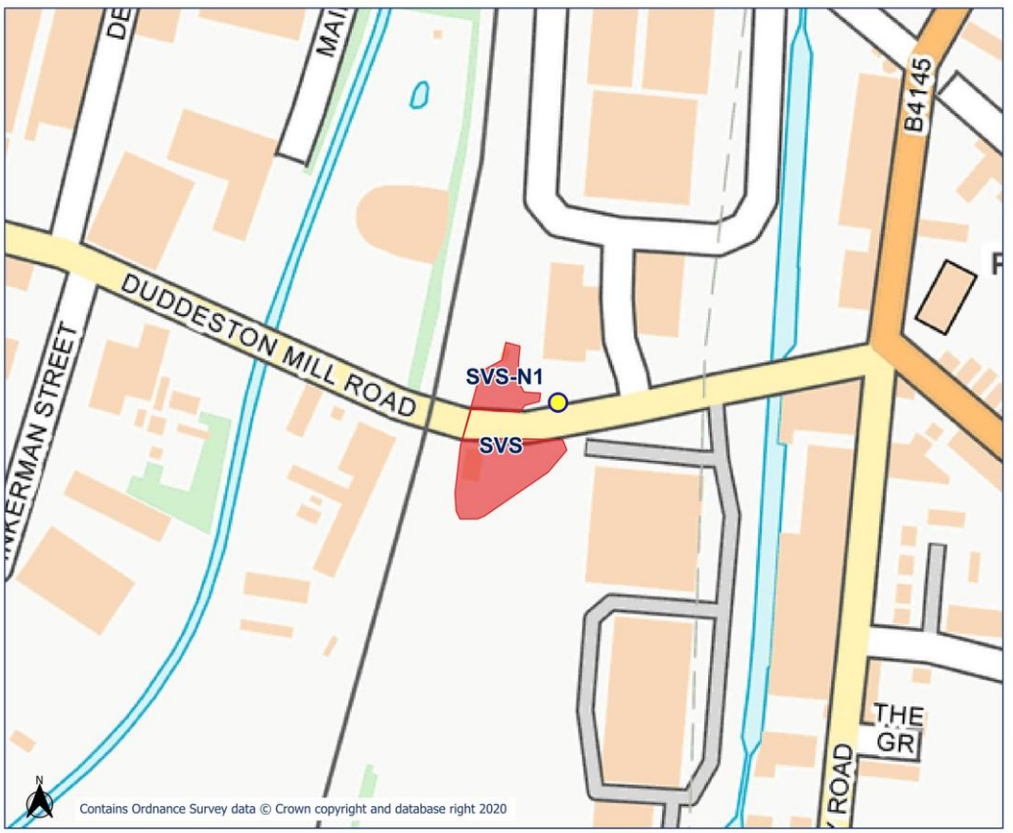


Appendix B Monitoring Locations

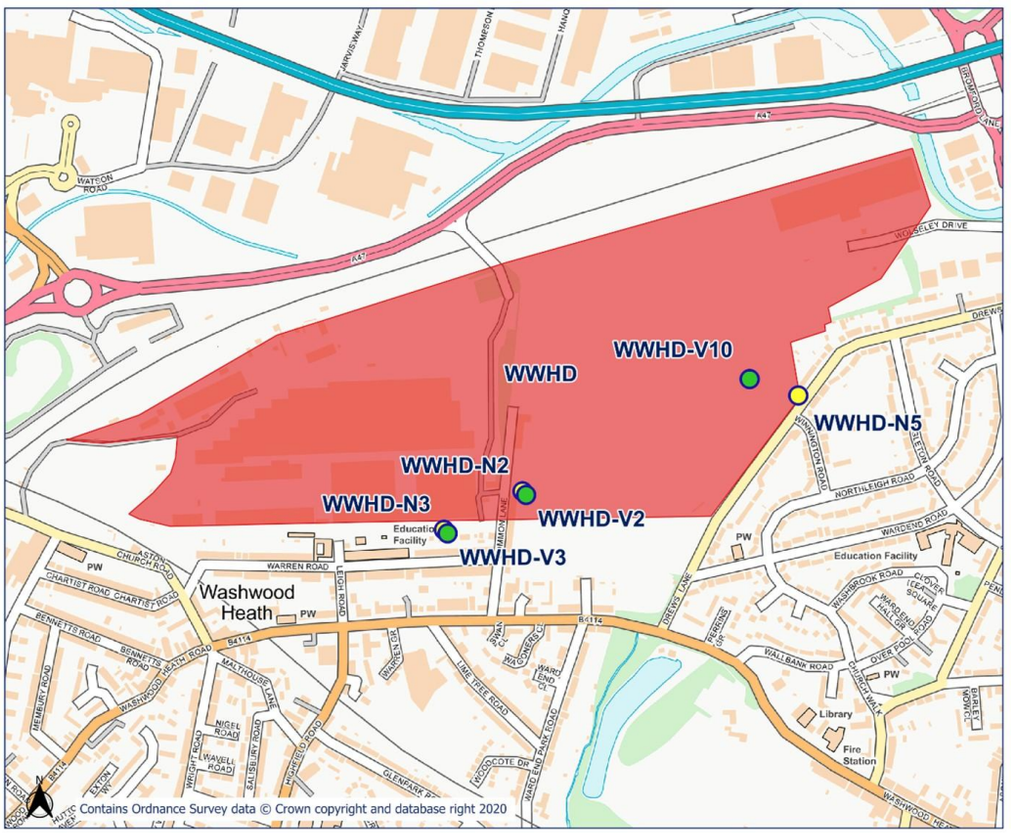
HS2 **Noise and Vibration Monitoring Plan - 1**



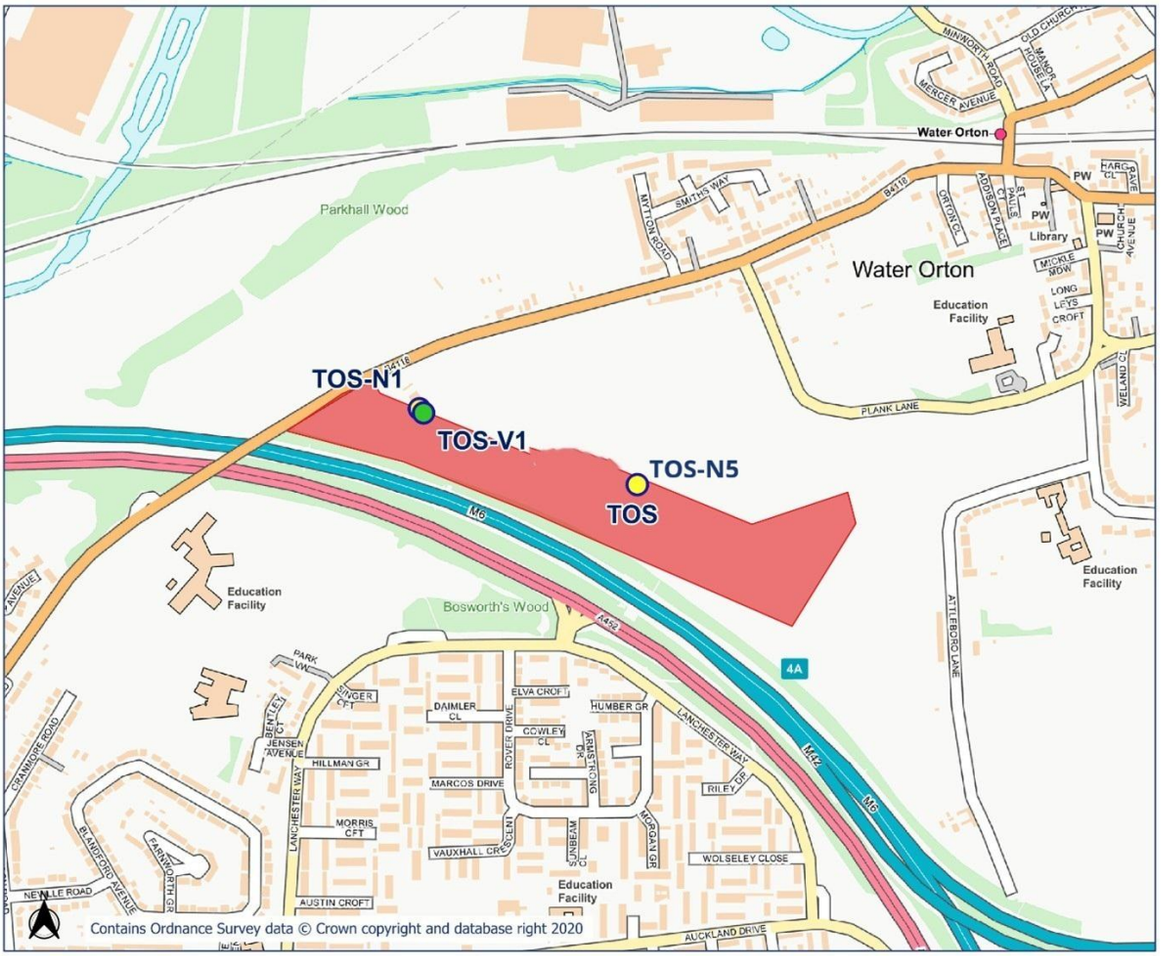
HS2 Noise and Vibration Monitoring Plan - 2



HS2 Noise and Vibration Monitoring Plan - 3



Noise and Vibration Monitoring Plan - 4



Appendix C Data

Noise

The following graphs show the hourly measured ambient noise level LAeq,1h and, where relevant, the averaged noise level LAeq,T values, where the time period T is as specified in Table 1 of HS2 Information Paper E23. Periods where noise levels are adversely affected by weather or only measured for part of the period, which are not representative of HS2 construction works, have been greyed out and excluded from the calculation of the LAeq,T values in in Table 3 of the main report.

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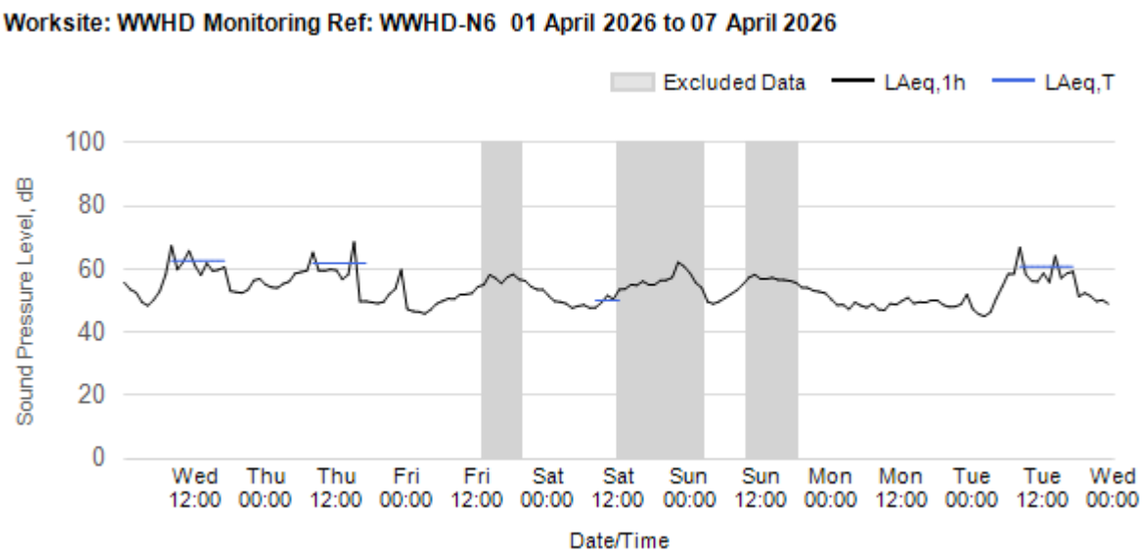

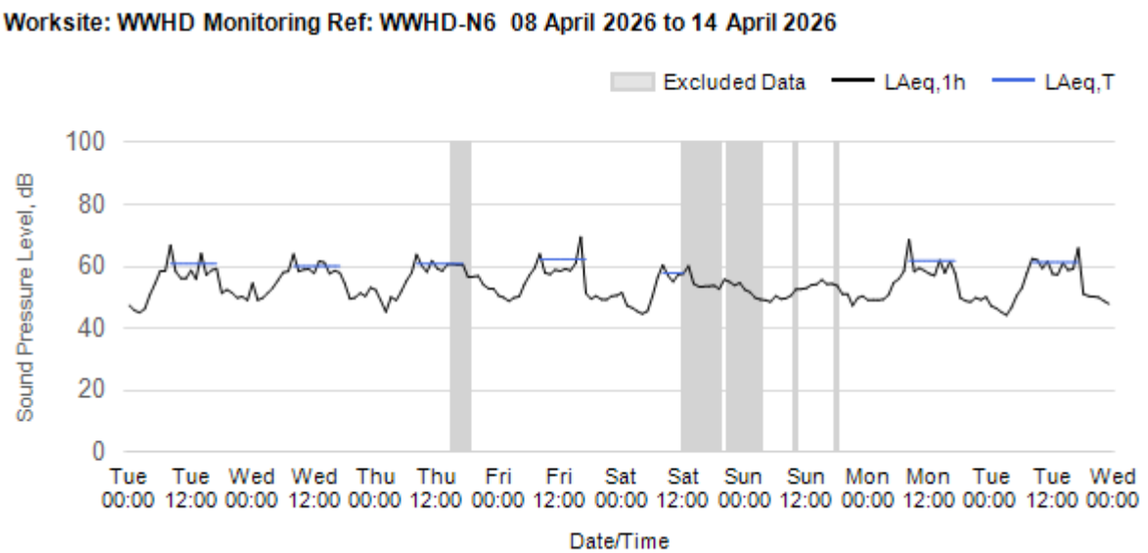

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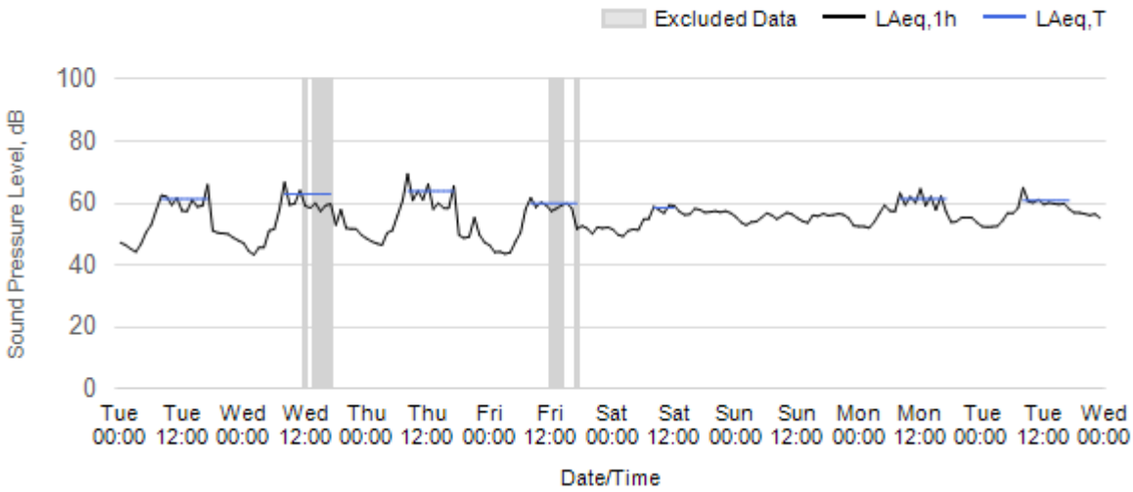
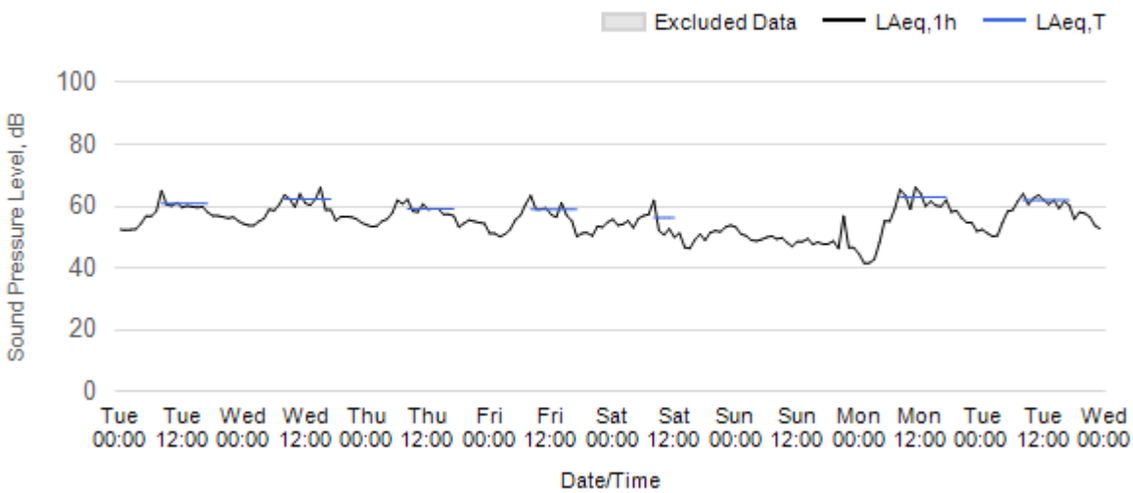
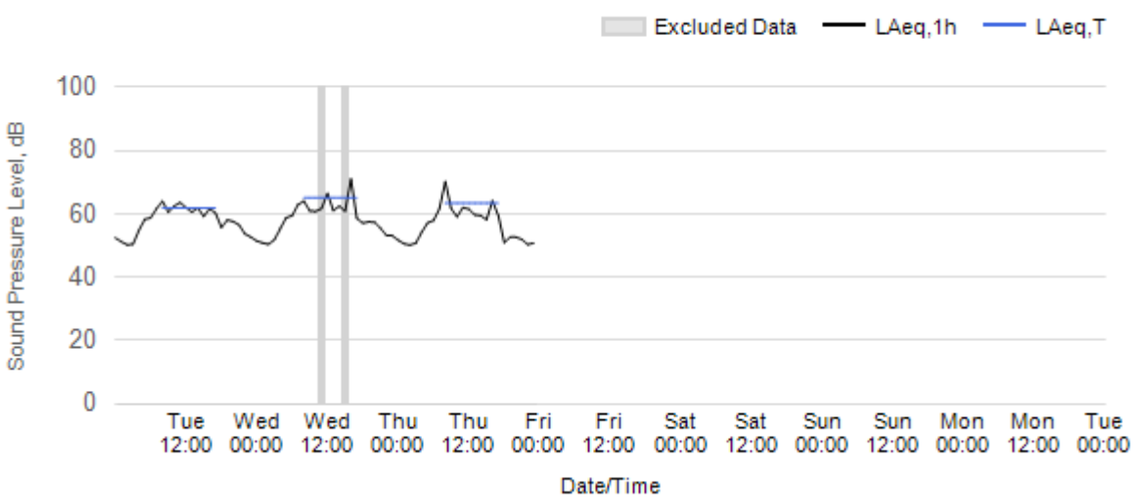


Worksite: WWHD Monitoring Ref: WWHD-N6 22 April 2026 to 28 April 2026



Worksite: WWHD Monitoring Ref: WWHD-N6 29 April 2026 to 5 May 2026



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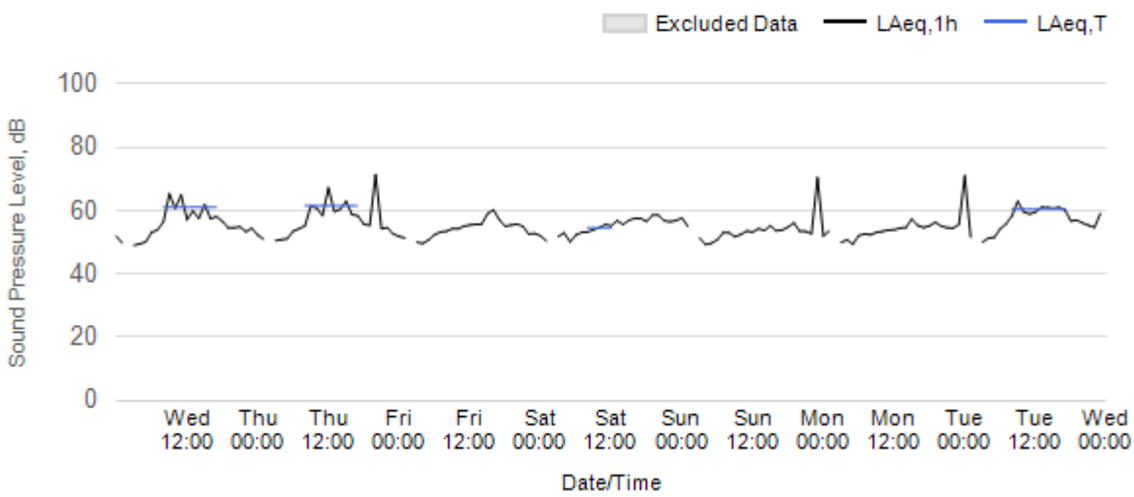
Worksite: CSS Monitoring Ref: 10288 01 April 2026 to 07 April 2026



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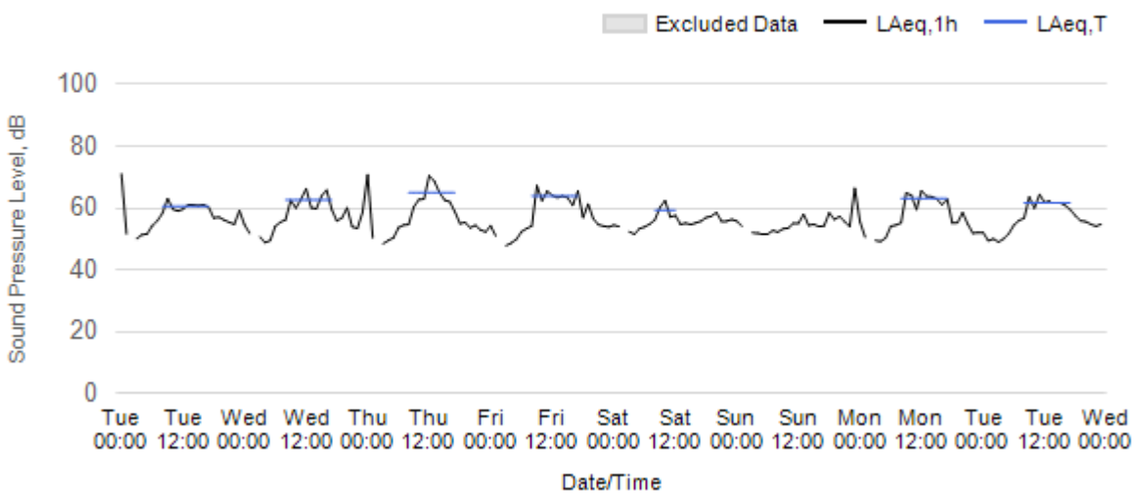

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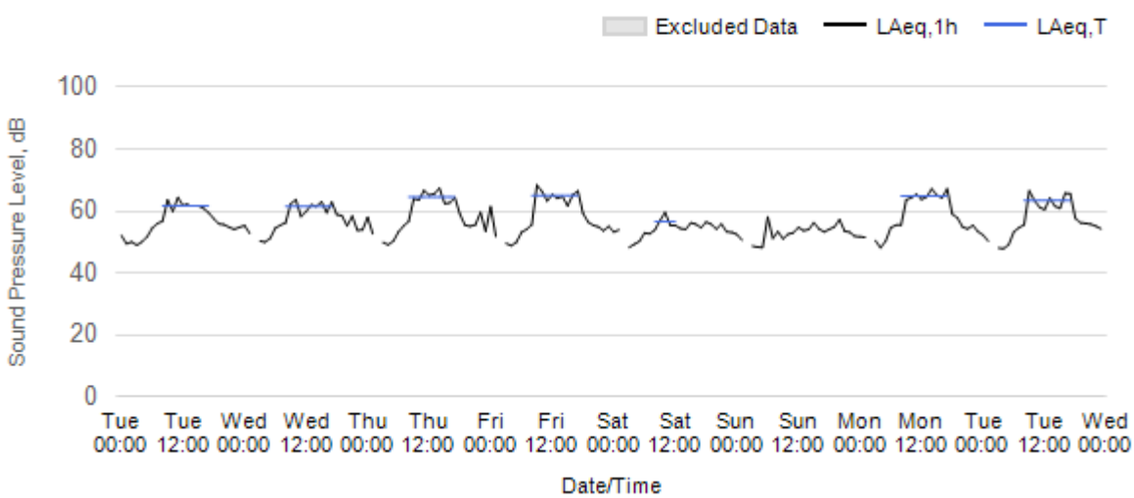

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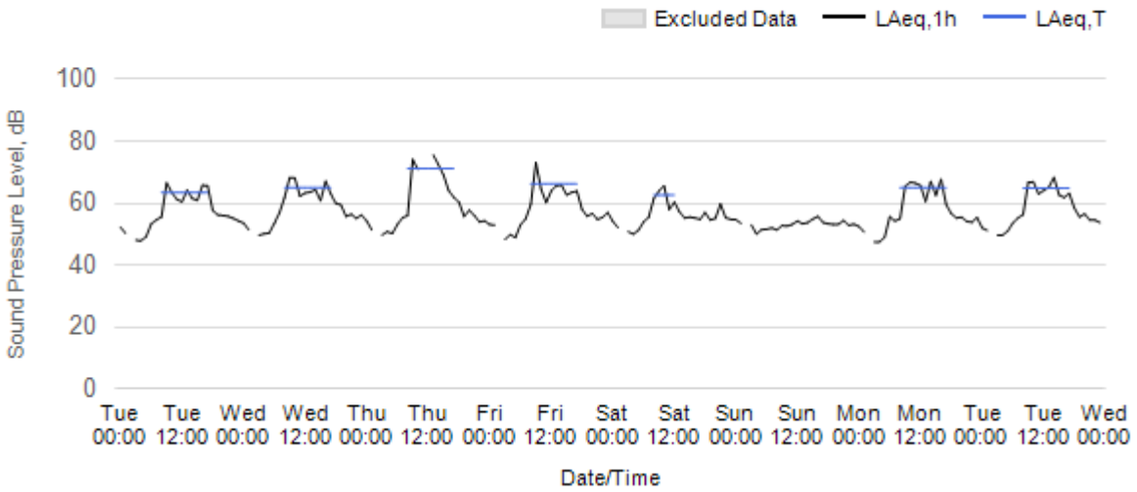

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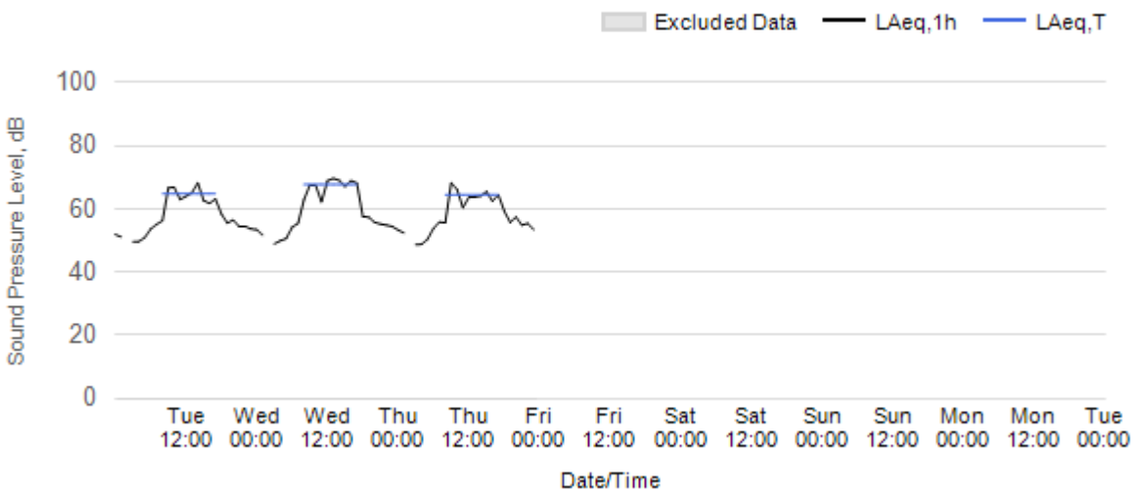

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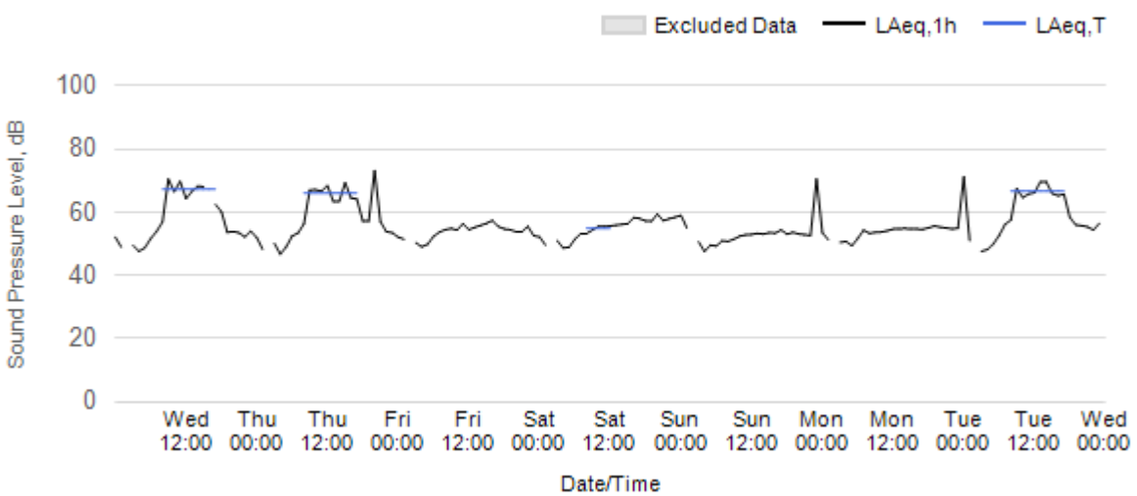

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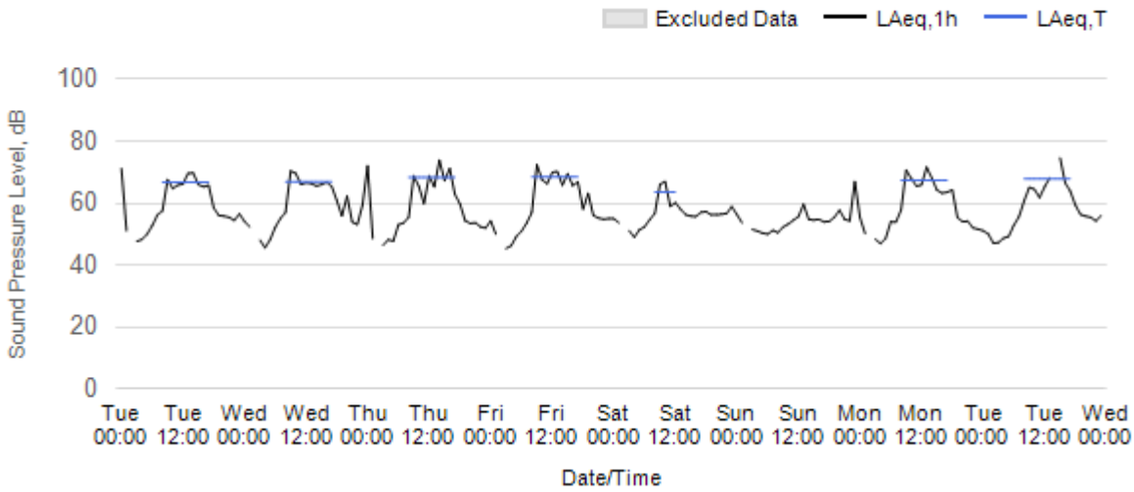

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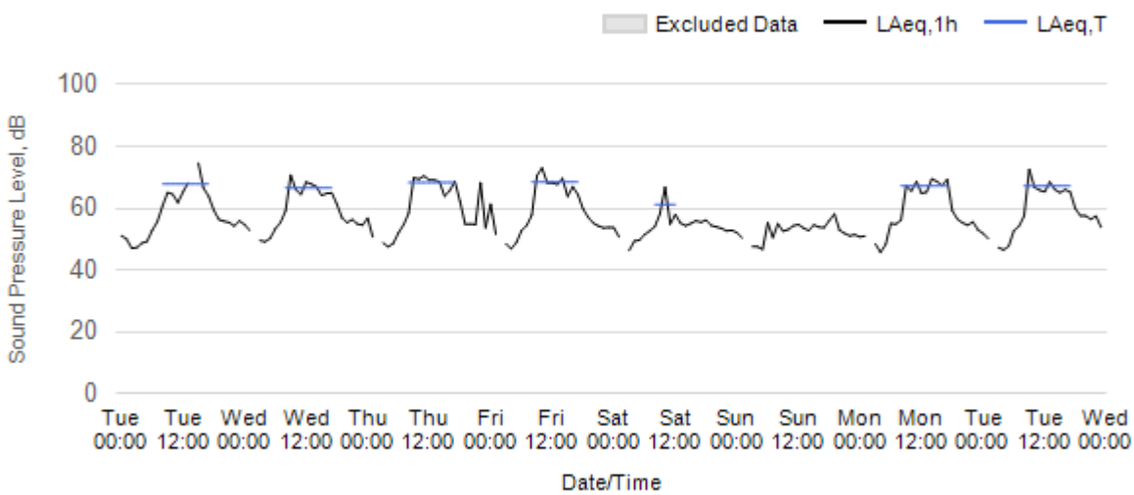

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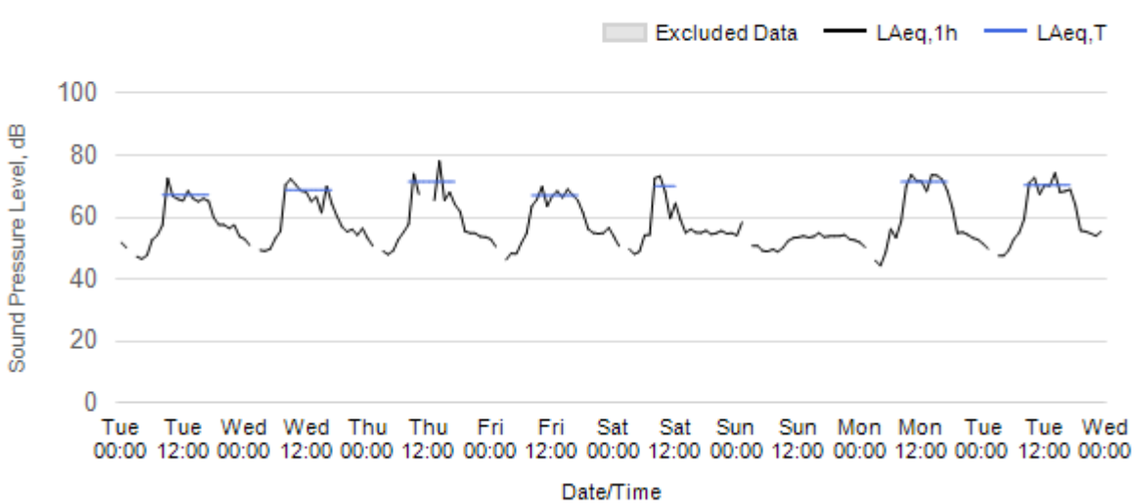

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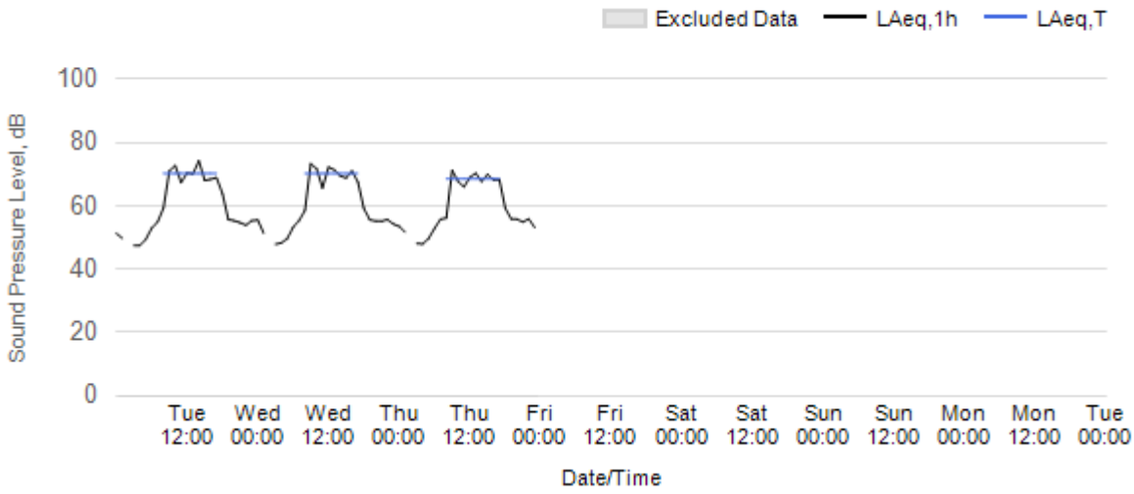

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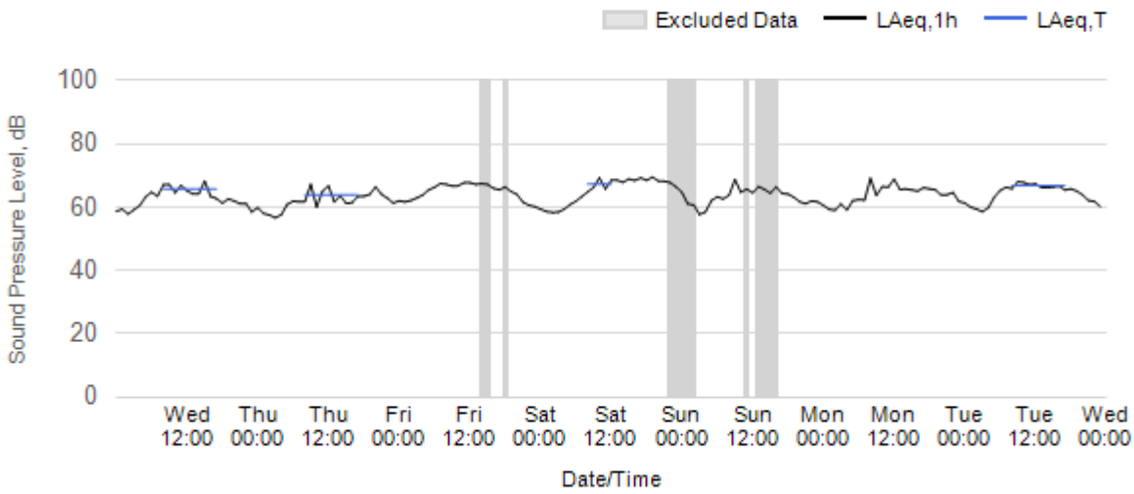
Worksite: TOS Monitoring Ref: TOS-N1 01 April 2026 to 07 April 2026



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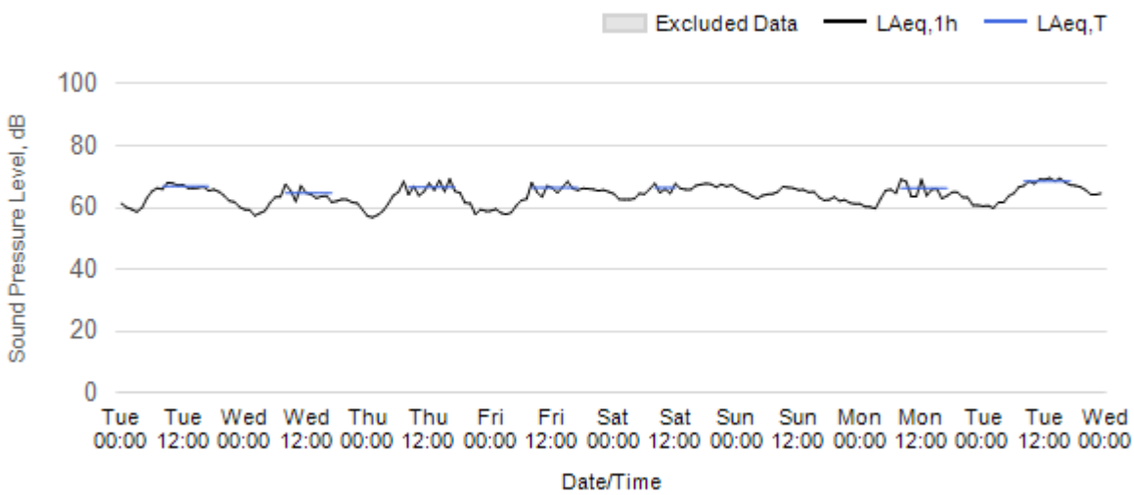

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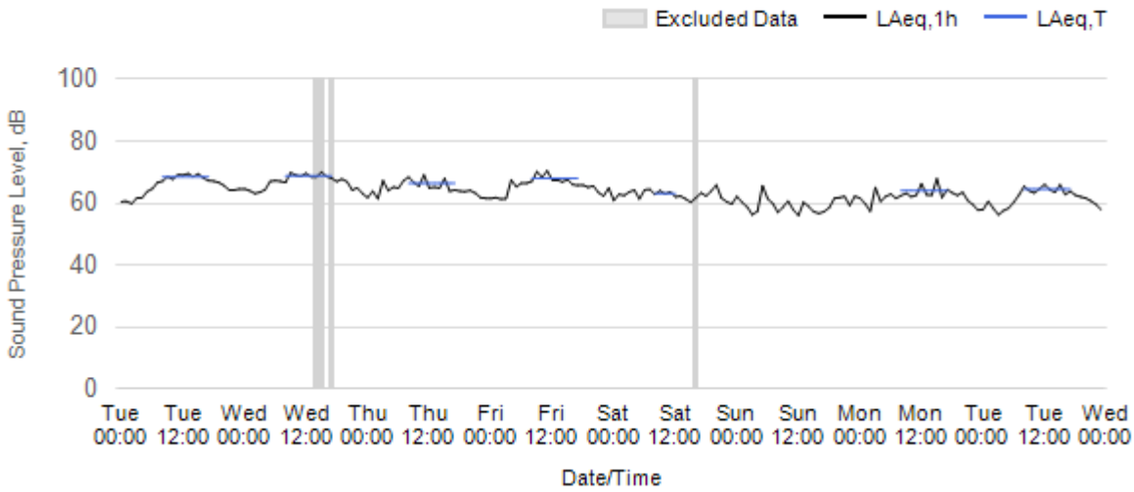

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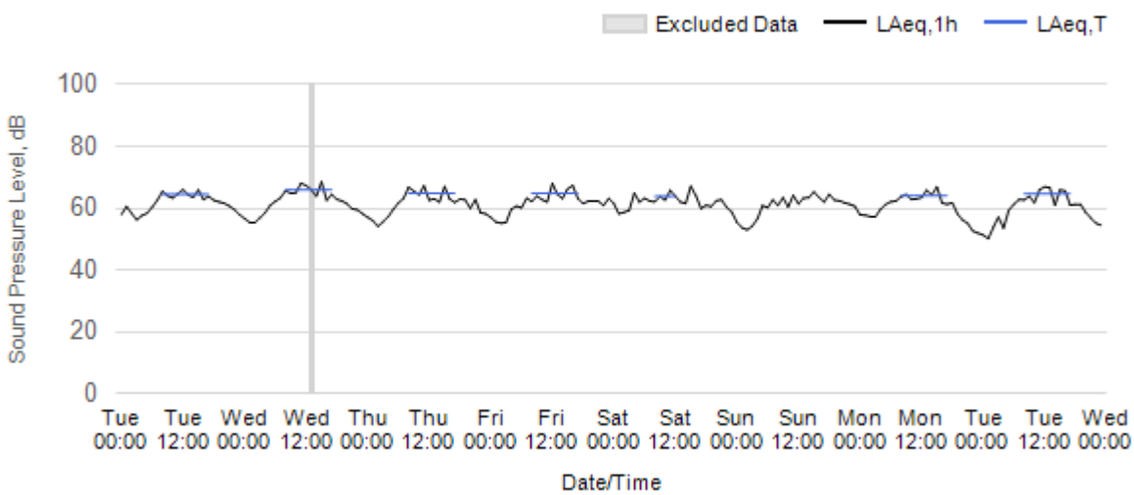

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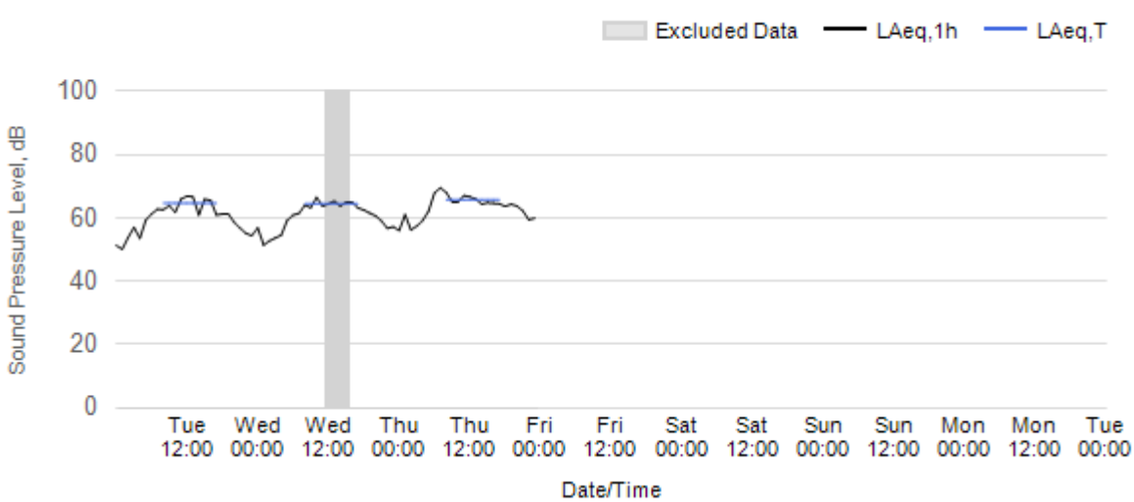

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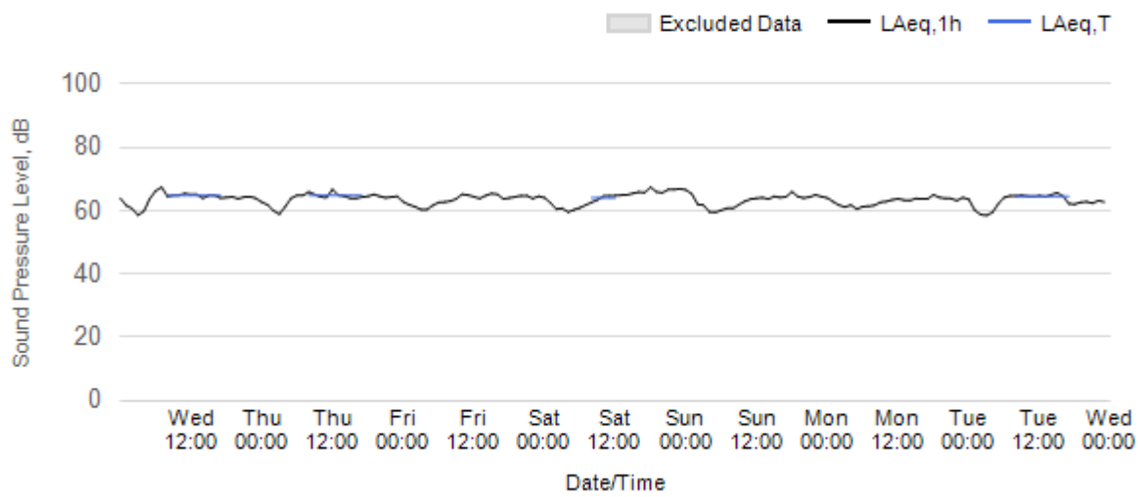
Worksite: LMW Monitoring Ref: LMW-N1 01 April 2026 to 07 April 2026



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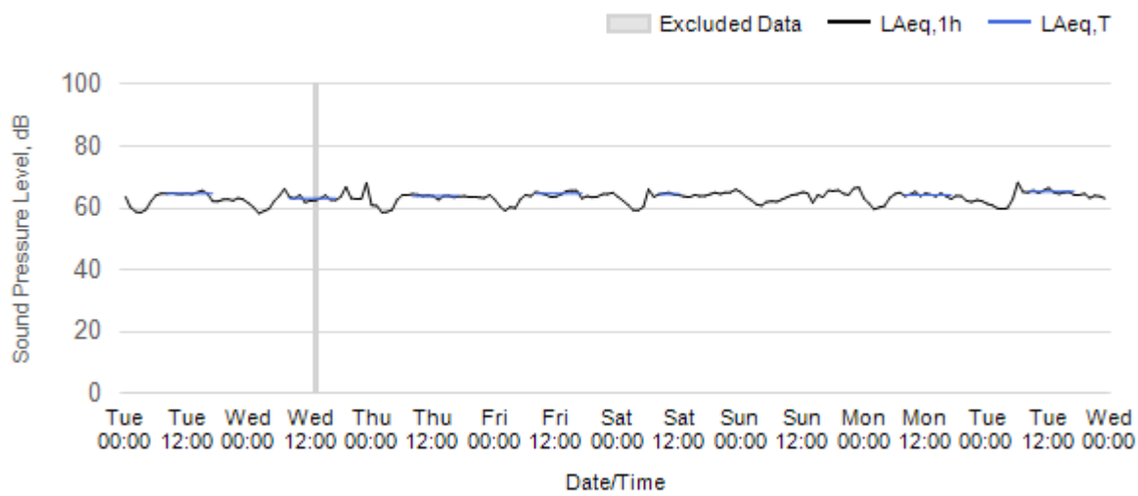

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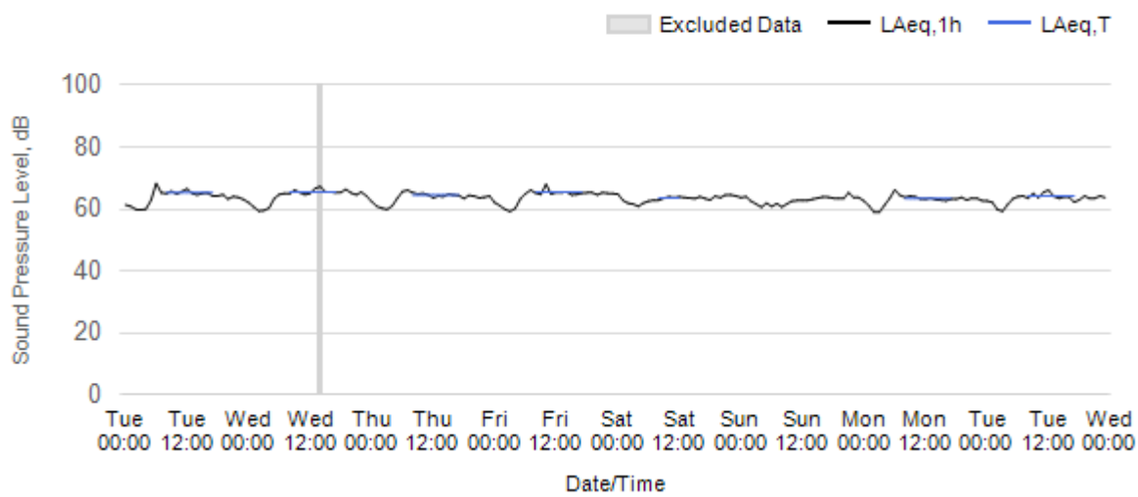

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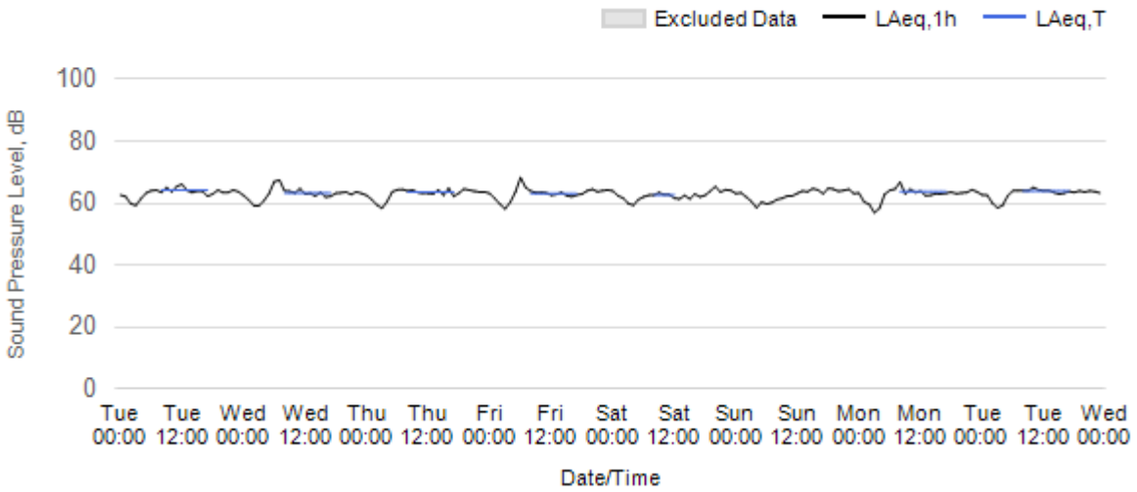

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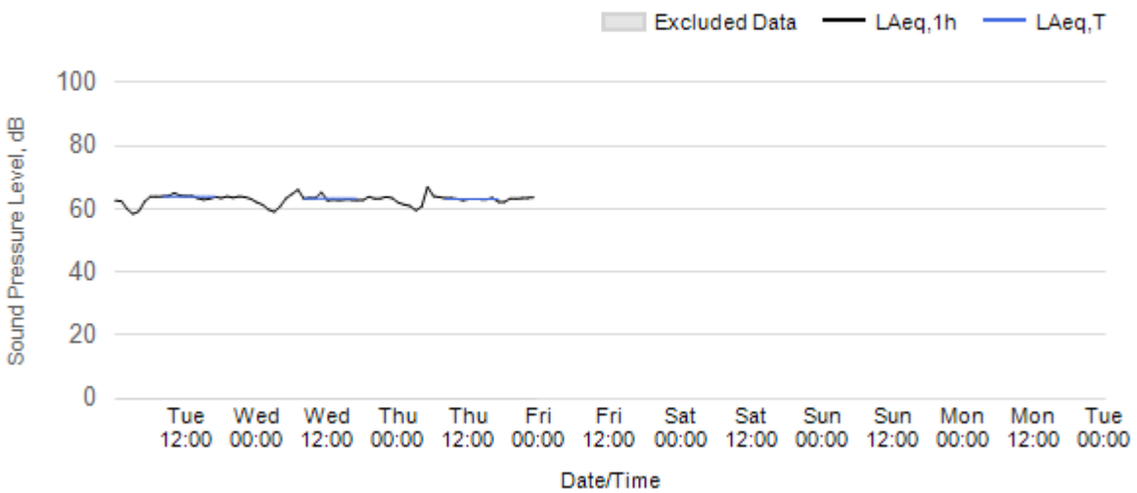

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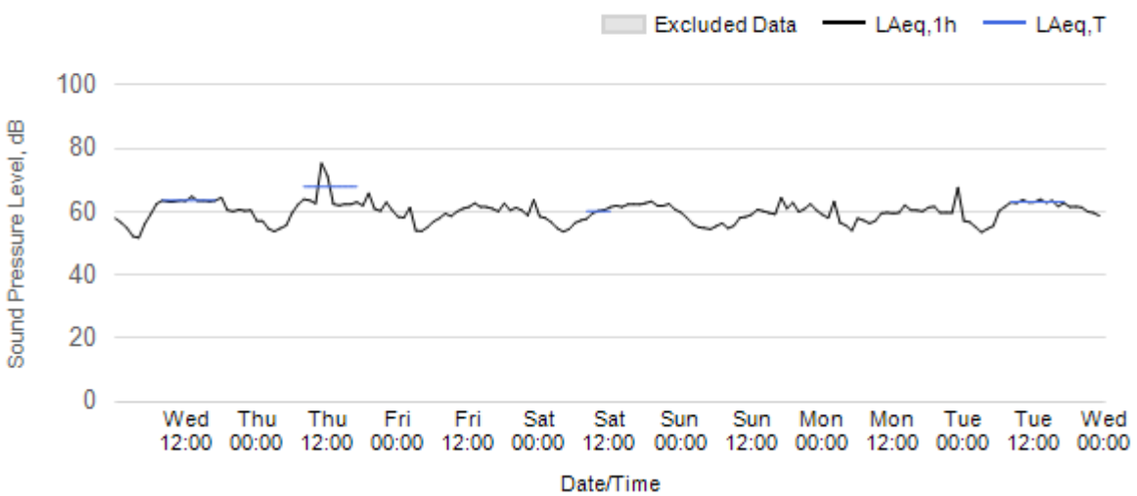
Worksite: CS Monitoring Ref: CS-N1 01 April 2026 to 07 April 2026



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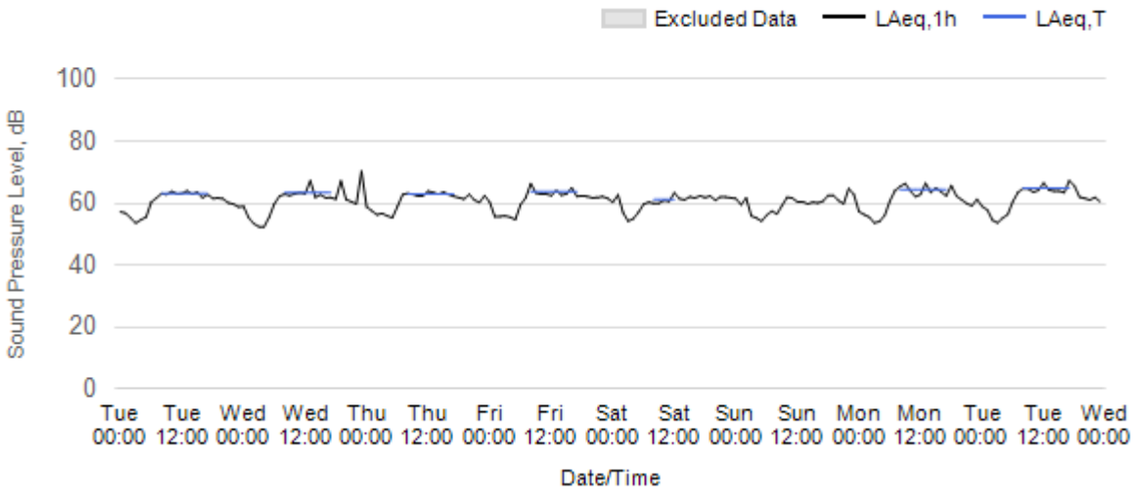

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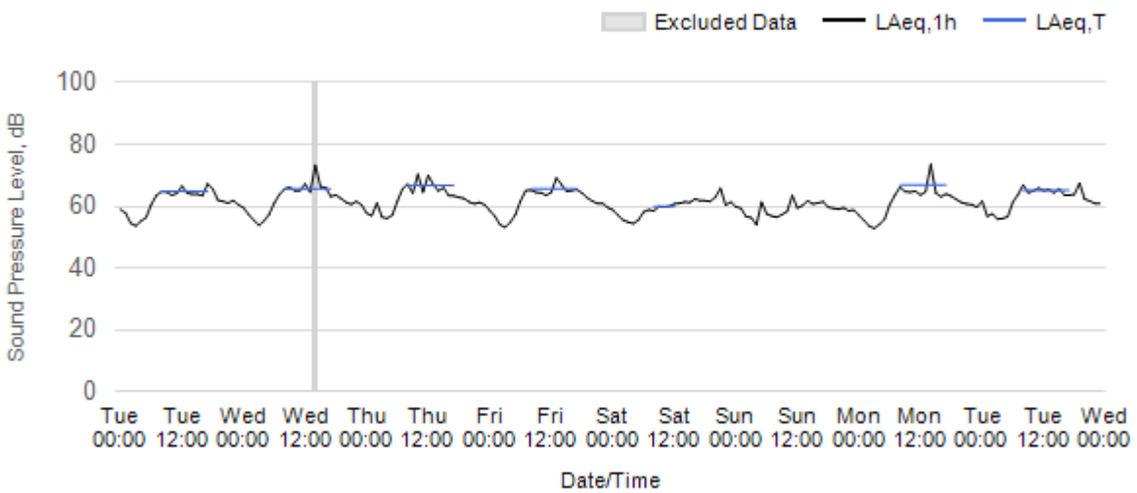

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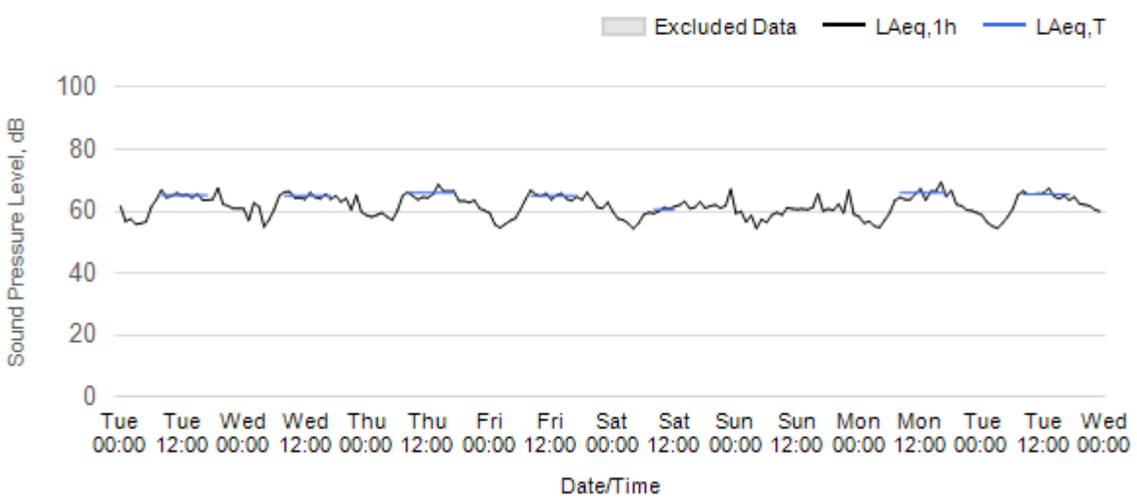

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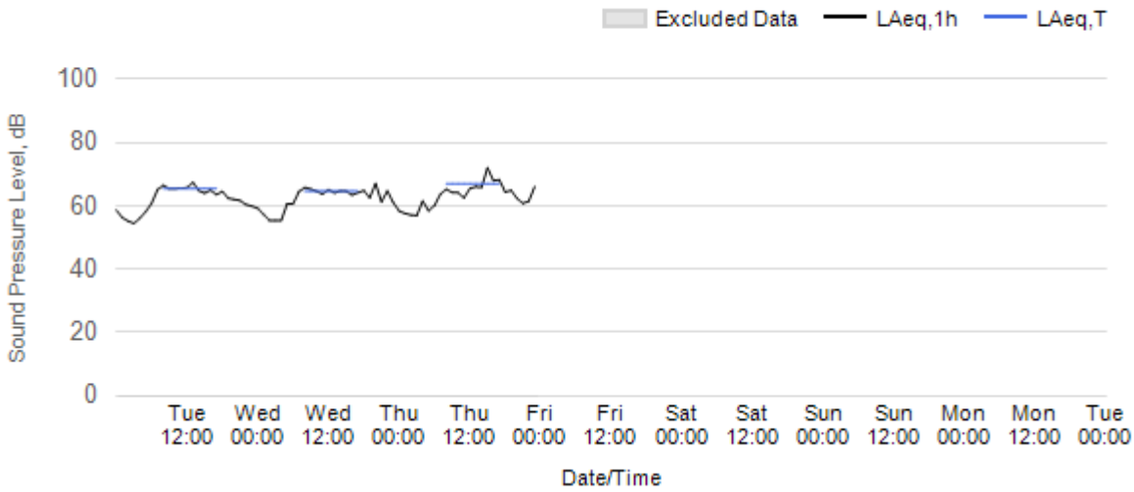

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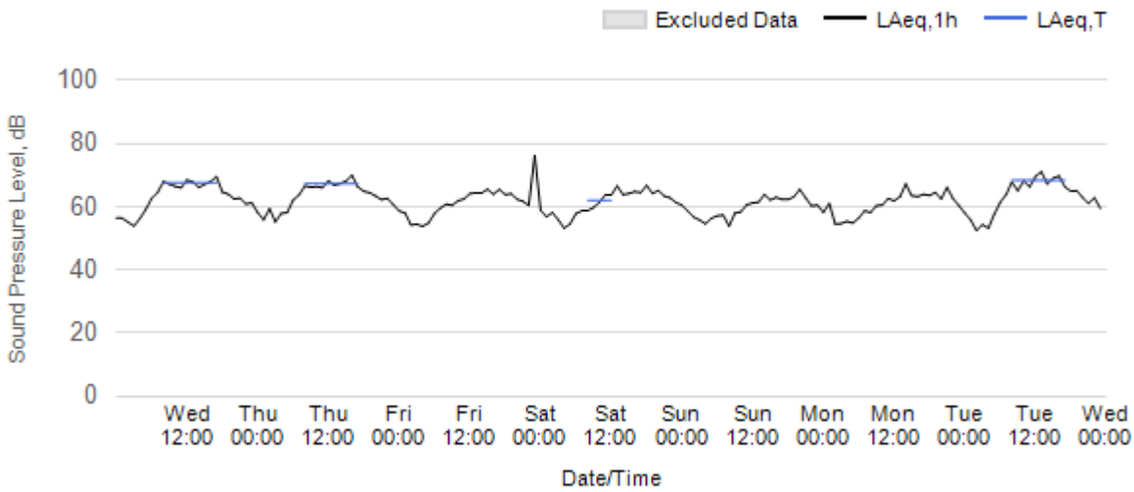
Worksite: SVS Monitoring Ref: SVS-N1 01 April 2026 to 07 April 2026



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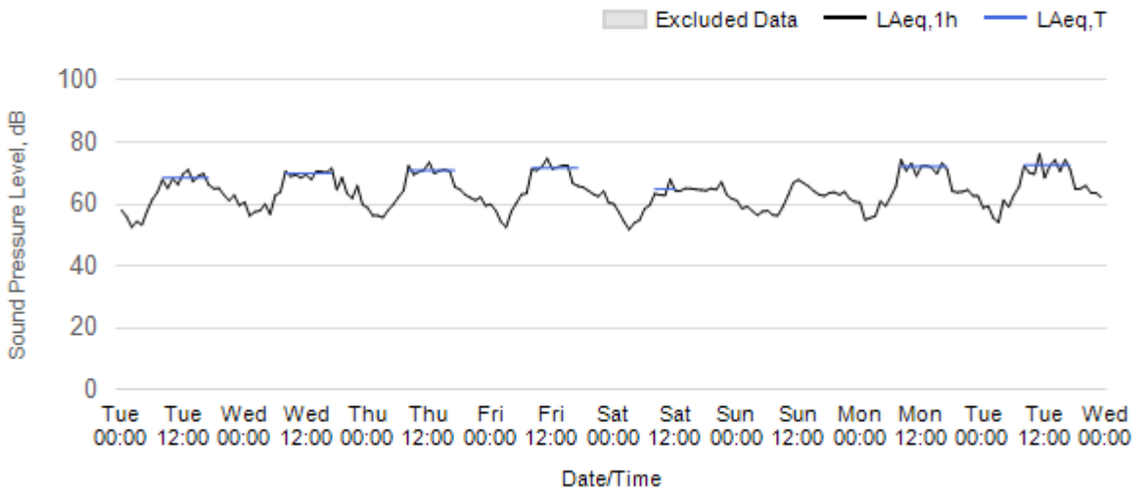

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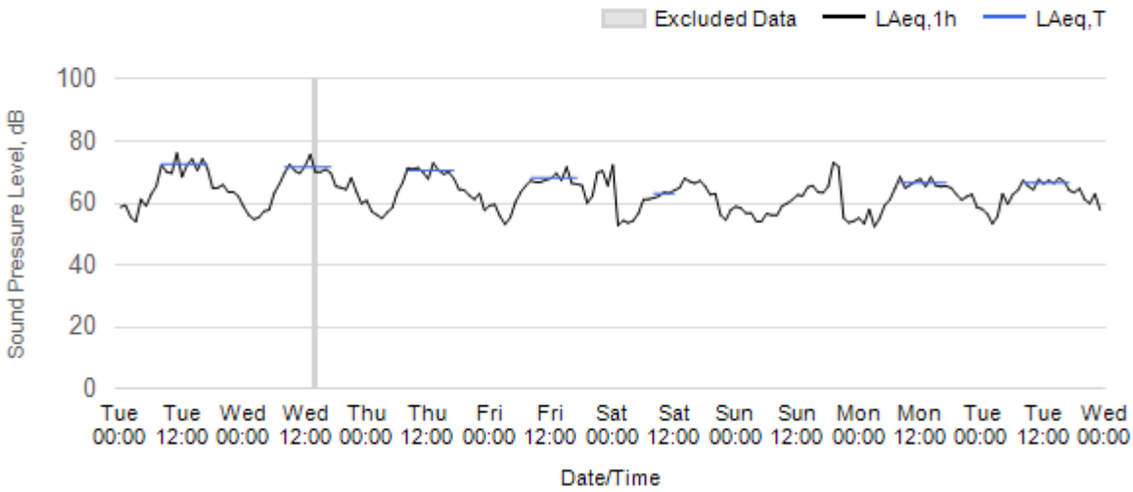

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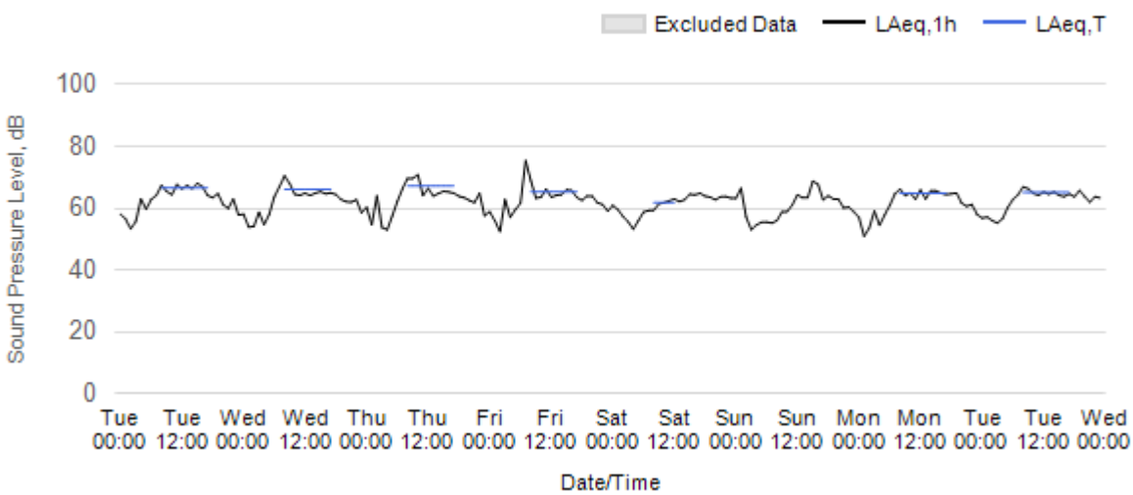

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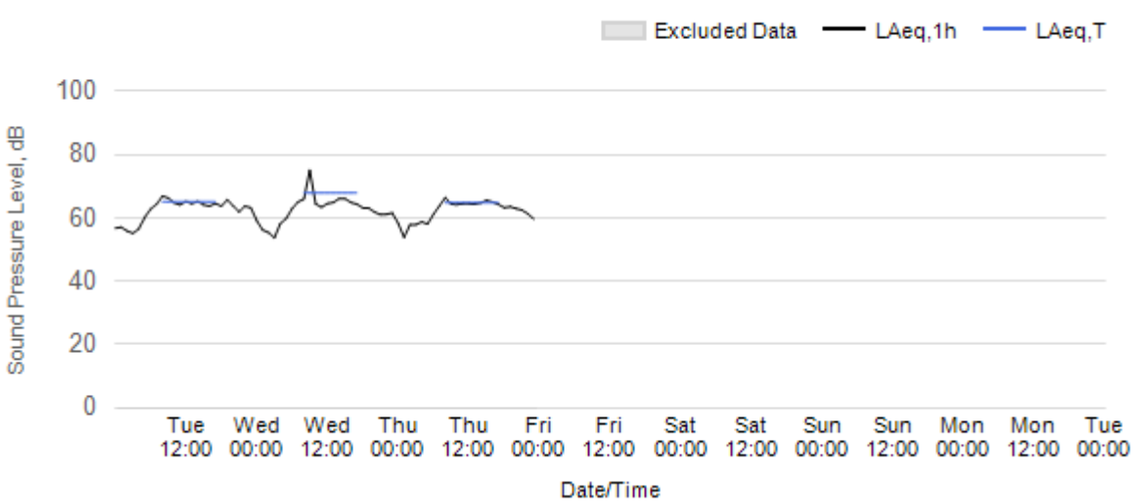

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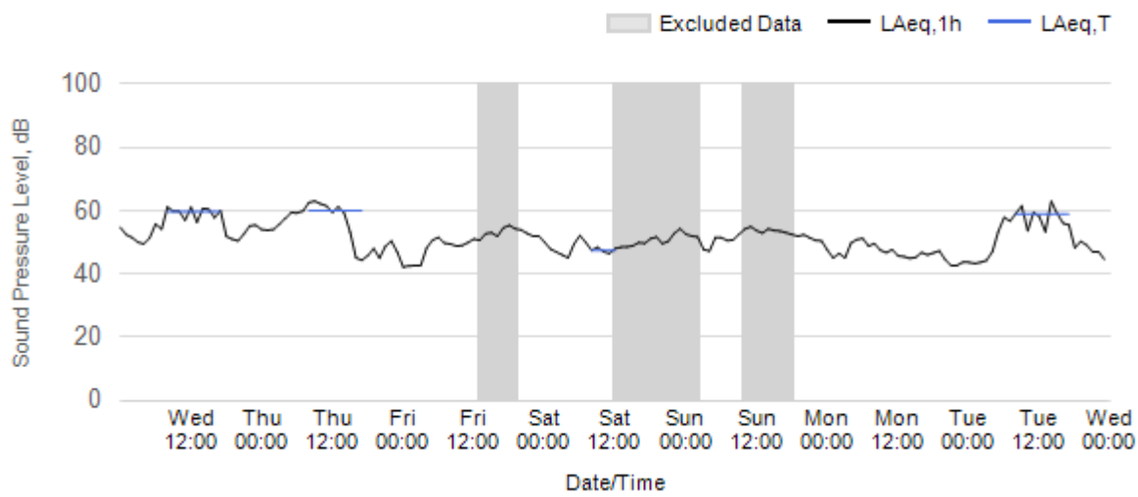
Worksite: WWHD Monitoring Ref: WWHD-N3 01 April 2026 to 07 April 2026



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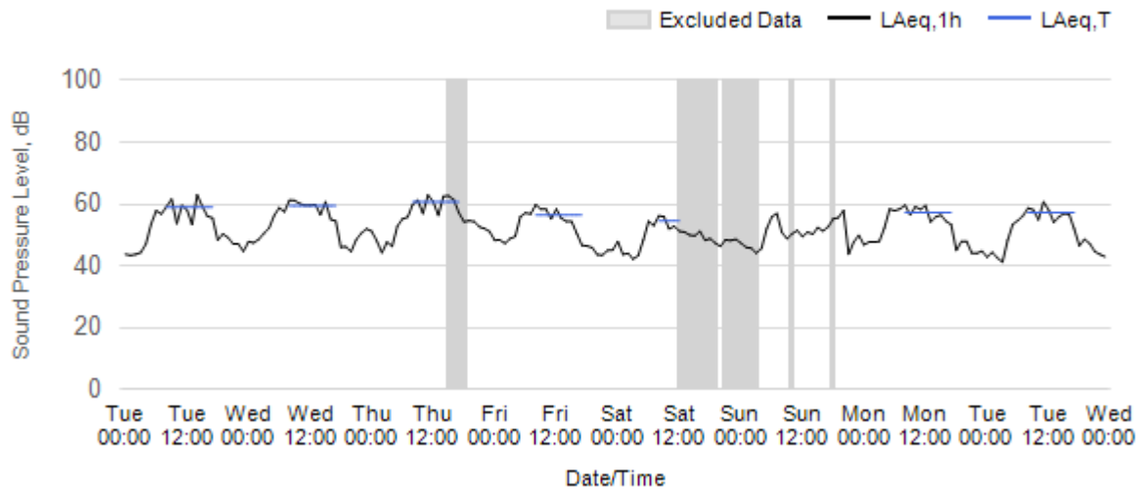

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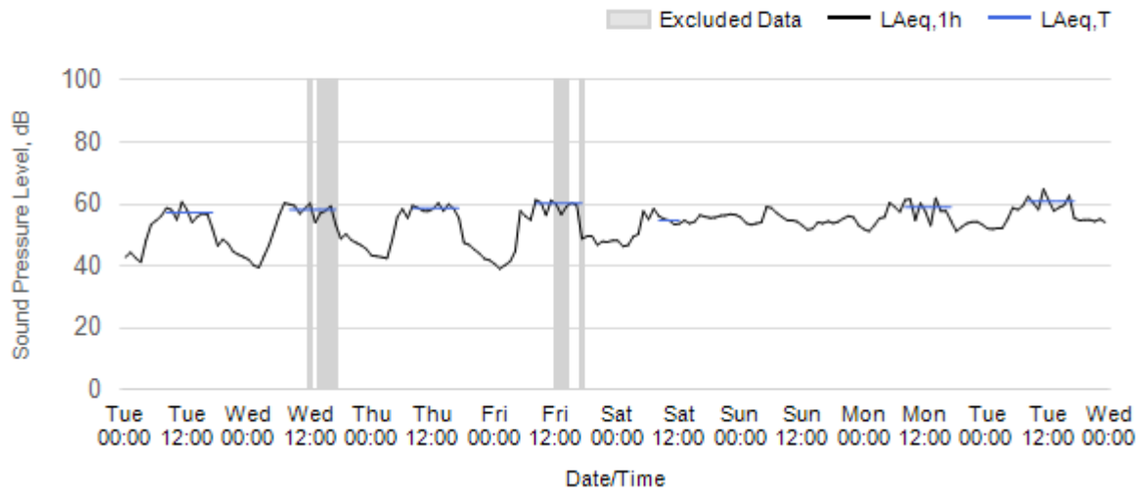

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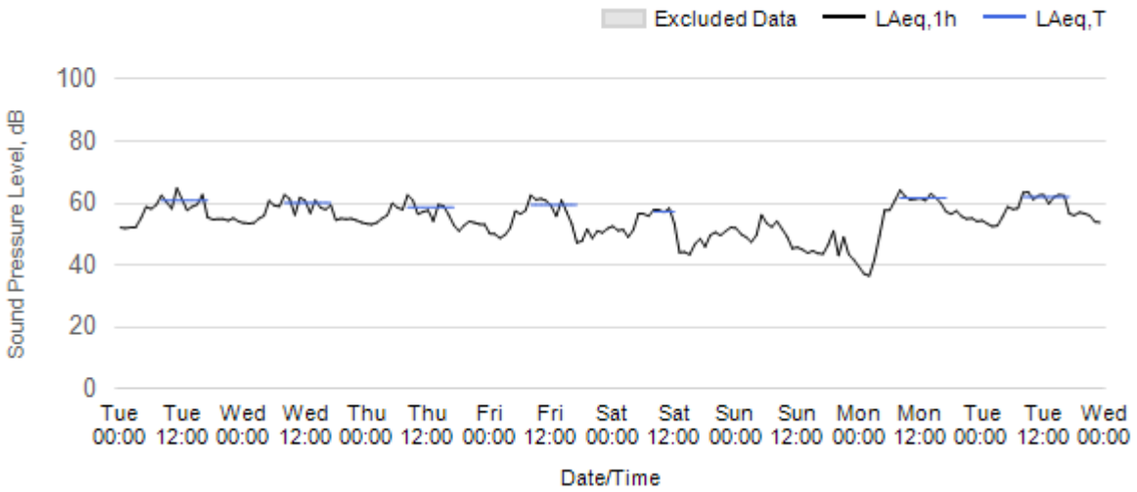

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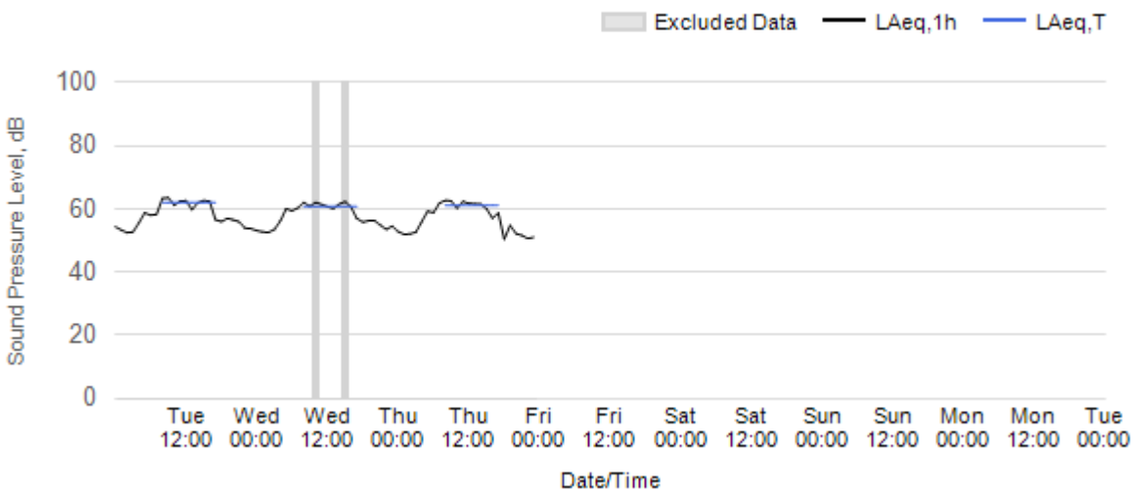

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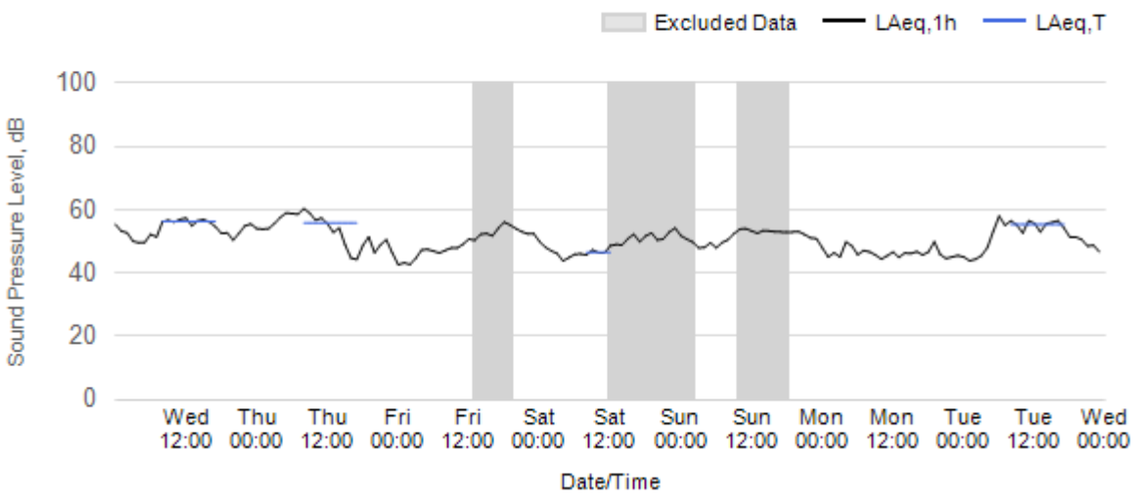
Worksite: WWHD Monitoring Ref: WWHD-N2 01 April 2026 to 07 April 2026



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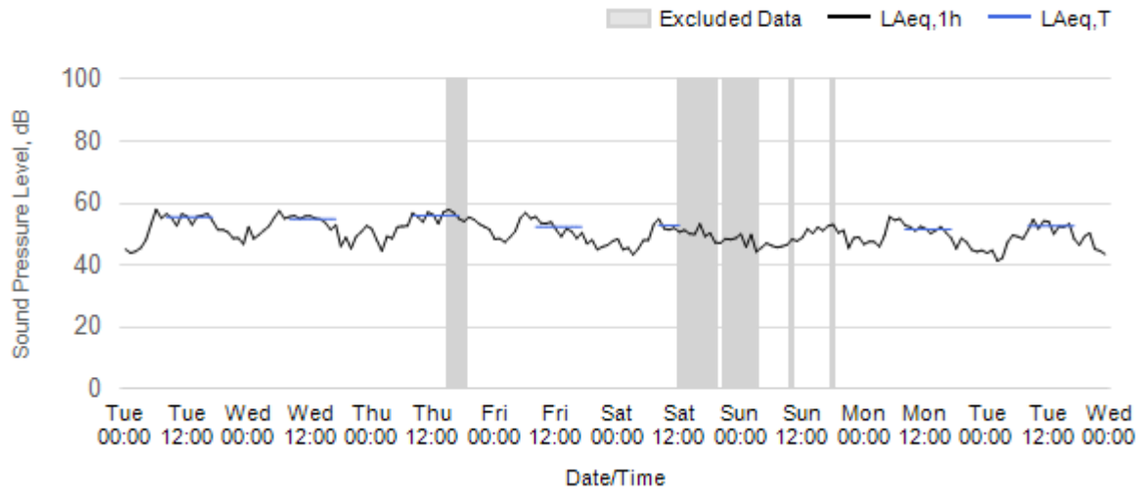

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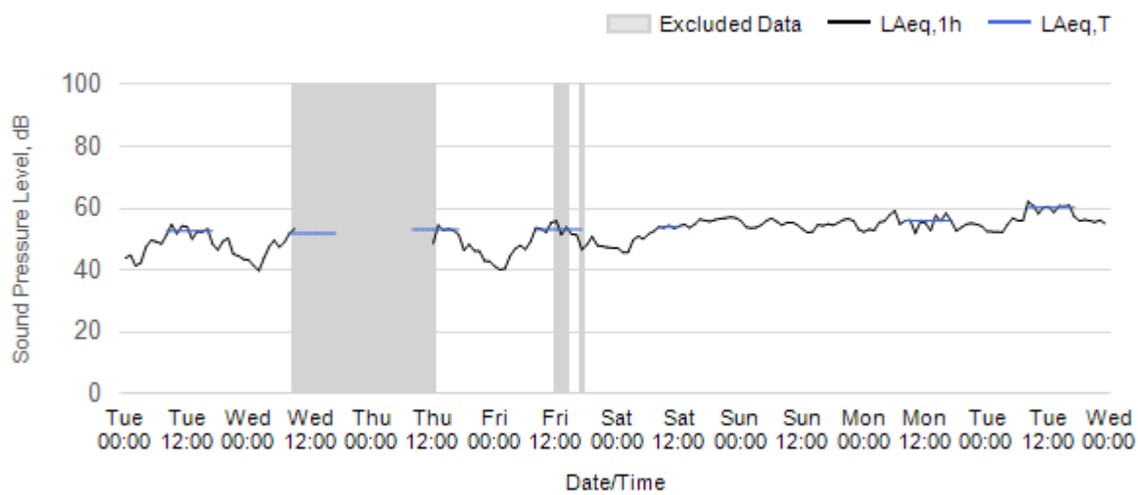
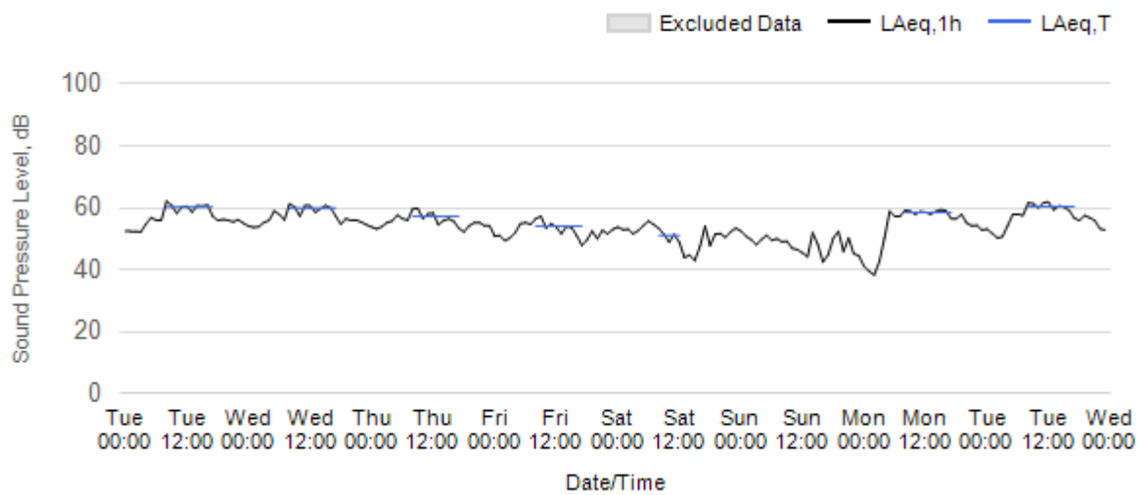


Note: Missing data due to a fault with monitoring equipment.

Worksite: WWHD Monitoring Ref: WWHD-N2 22 April 2026 to 28 April 2026



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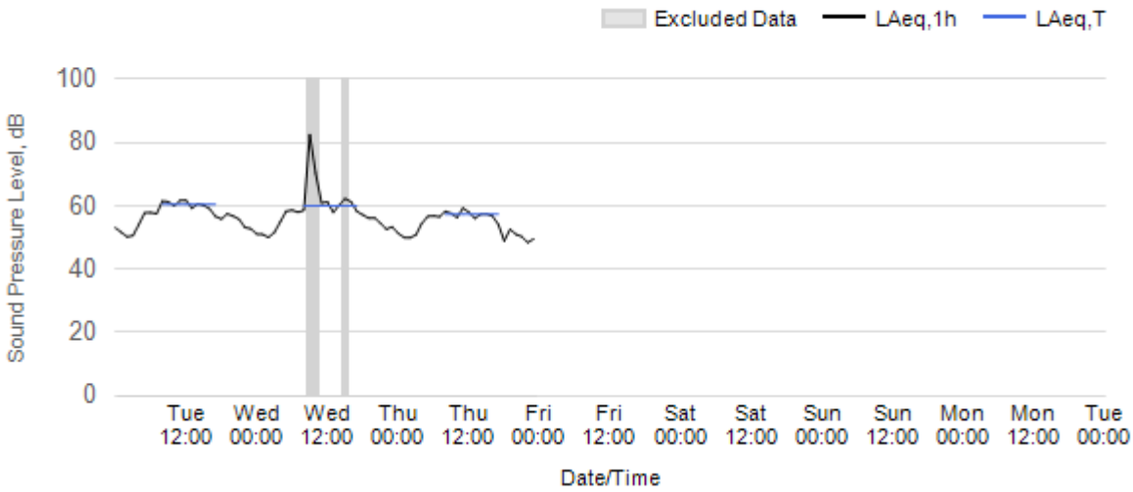

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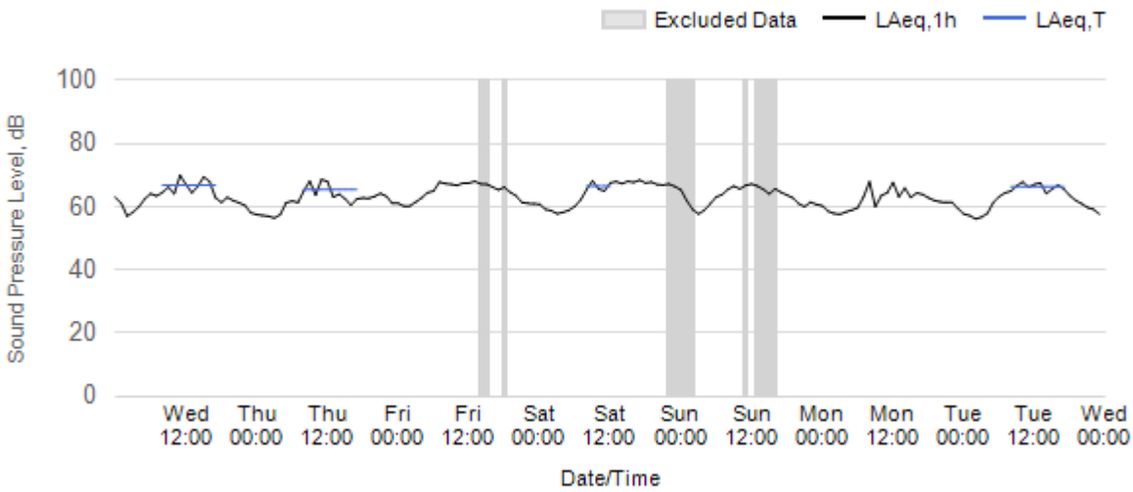
Worksite: TOS Monitoring Ref: TOS-N5 01 April 2026 to 07 April 2026



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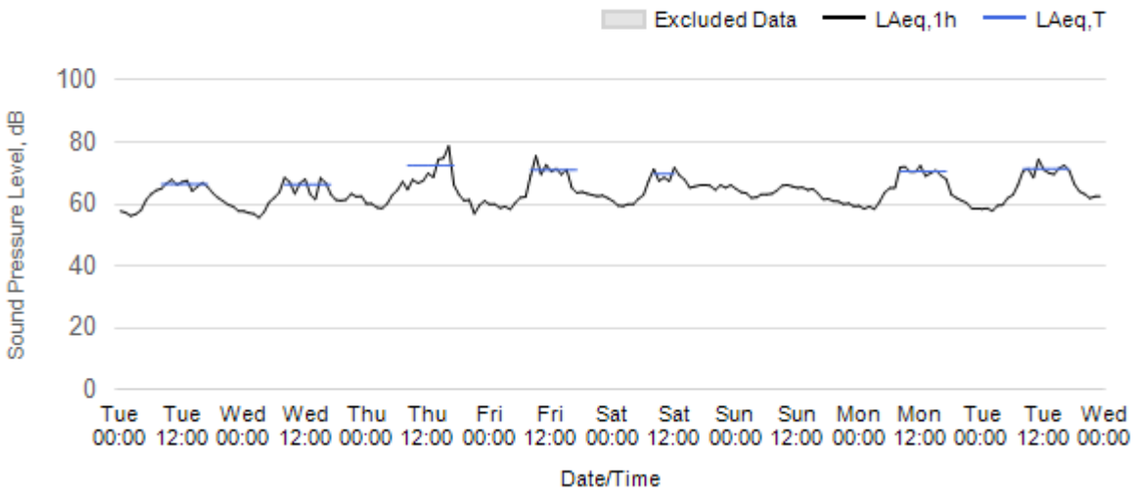

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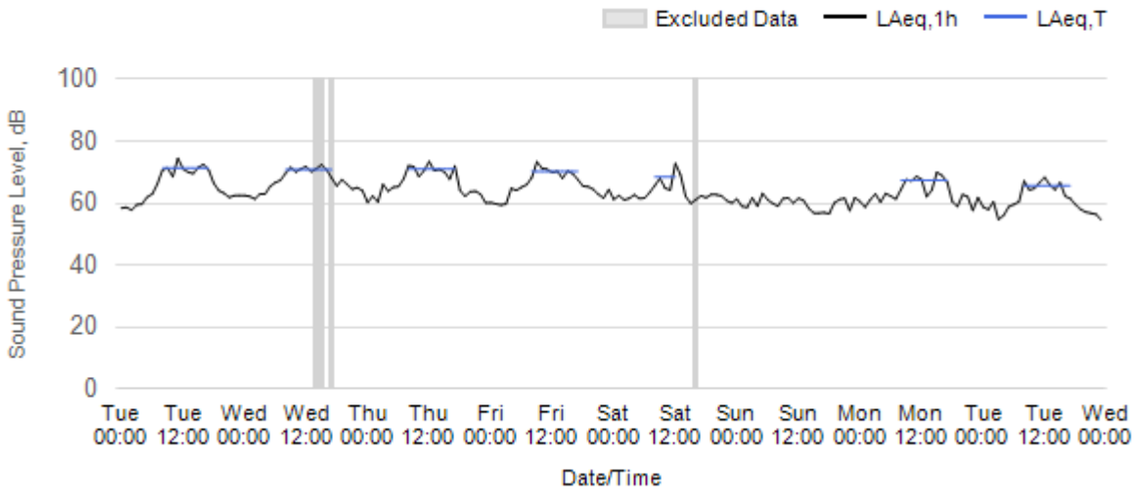

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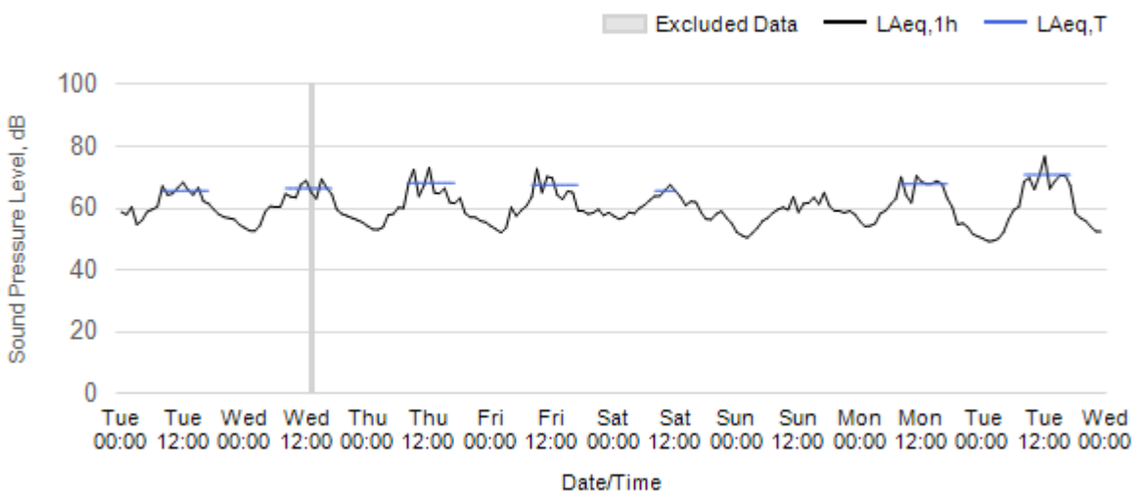

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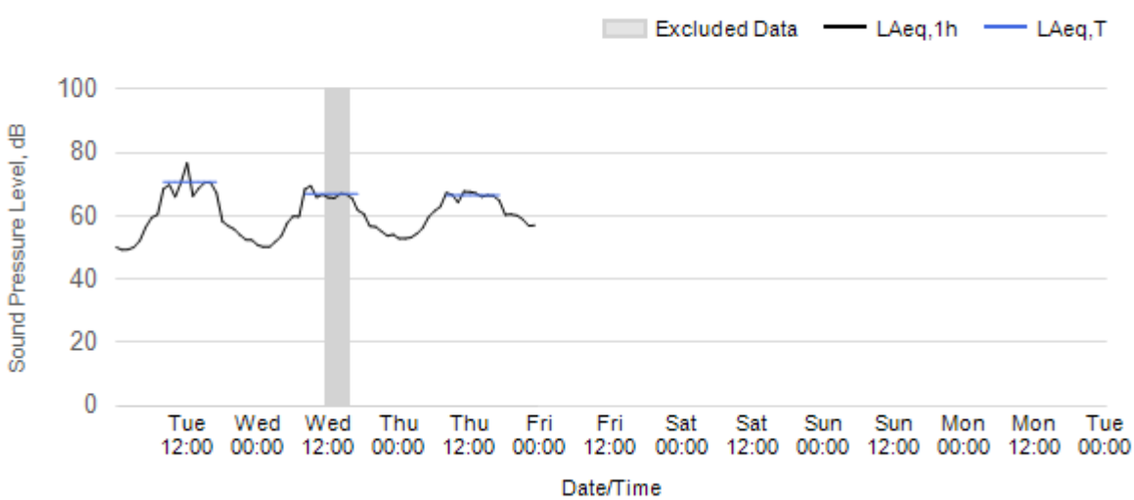
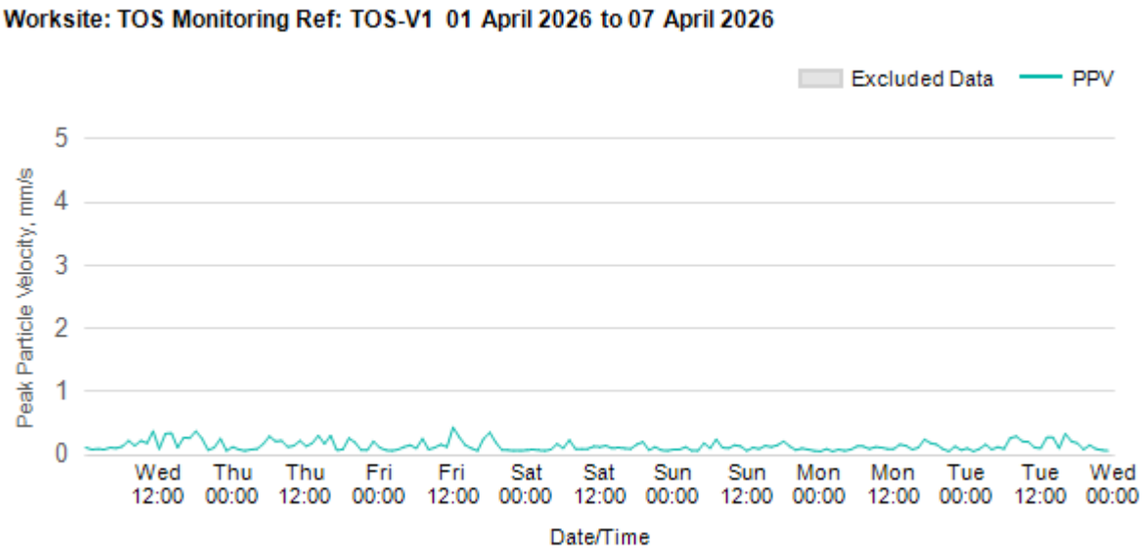
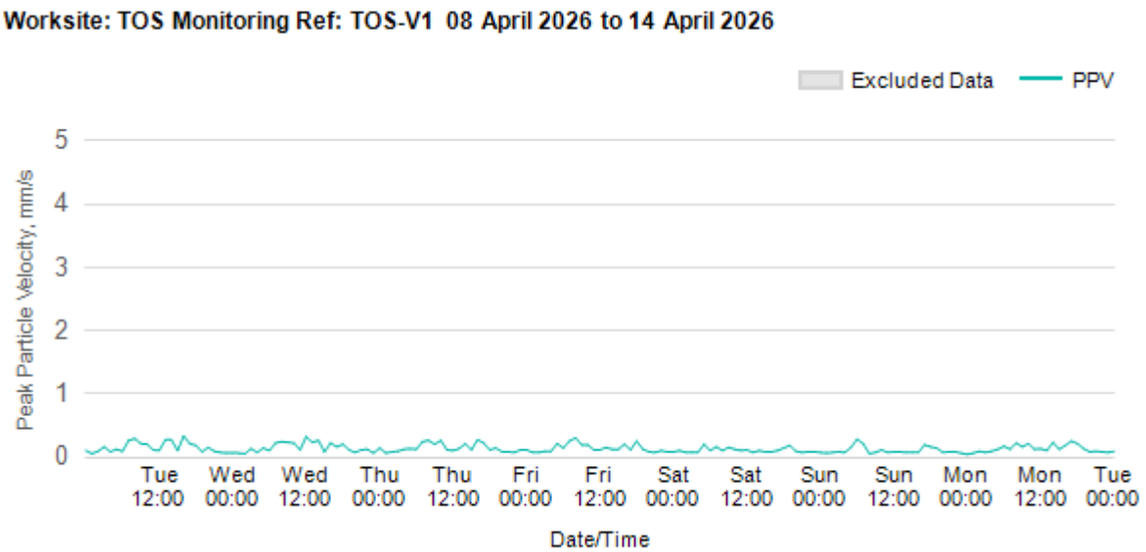


Vibration

The following graphs show the hourly measured peak particle velocity PPV recorded during the monitoring period. The graphs show the resultant PPV due to vibration components on three orthogonal axis x, y and z. Where high values of PPV were caused by local interference with the vibration monitor, which are not representative of HS2 construction works, these values have been greyed out in the following charts and have been excluded to calculate values in Table 4 of the main report.

Worksite: TOS - Monitoring Ref: TOS-V1





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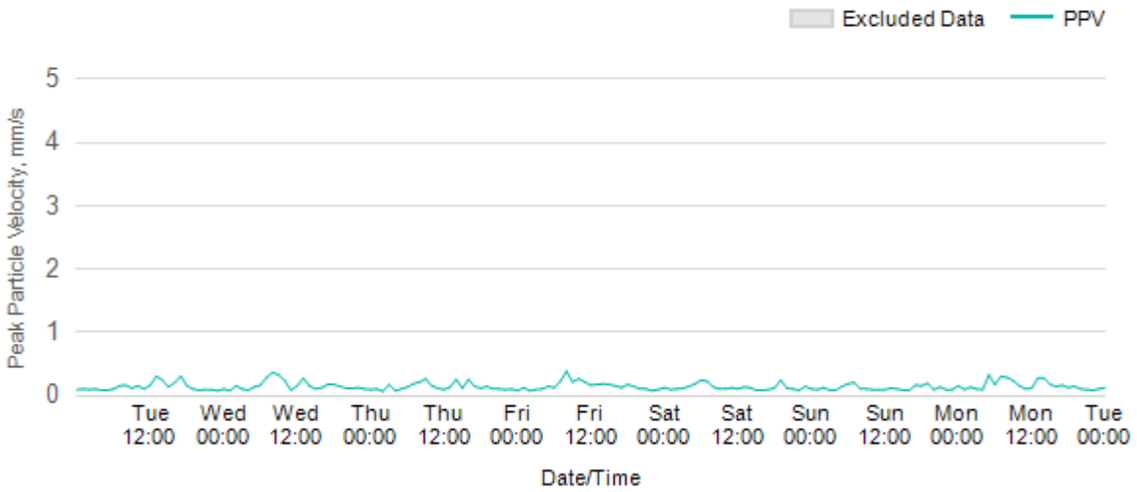

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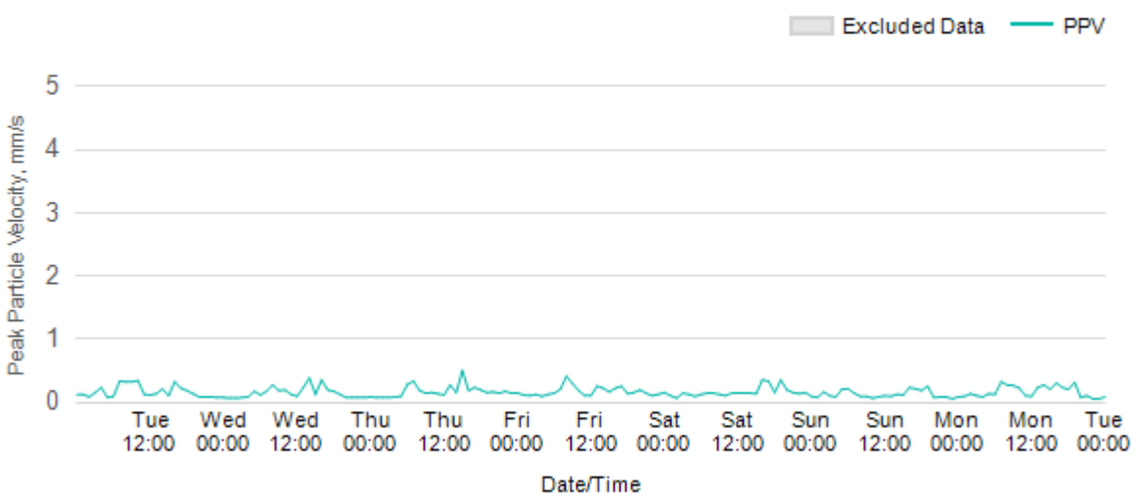

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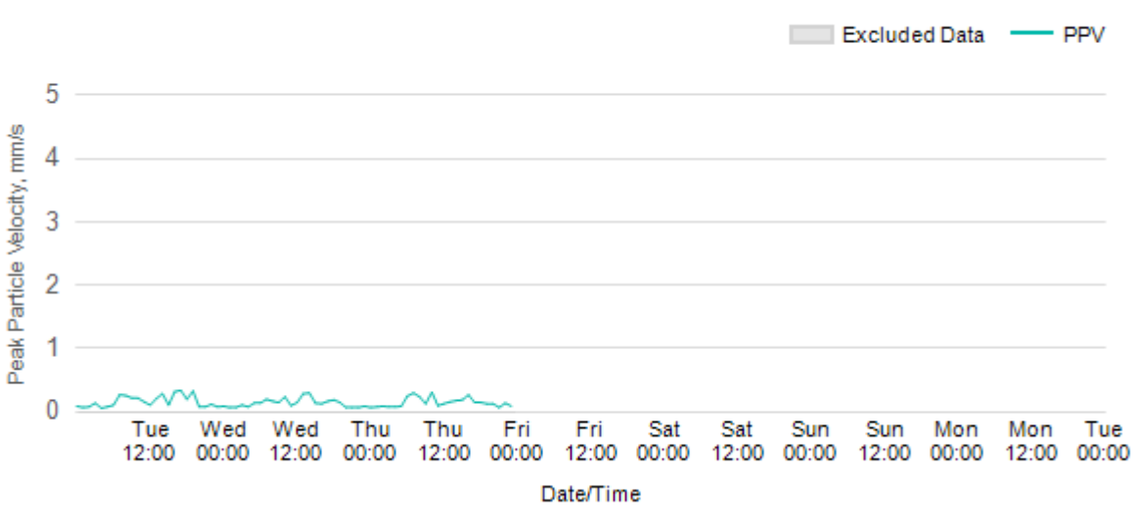

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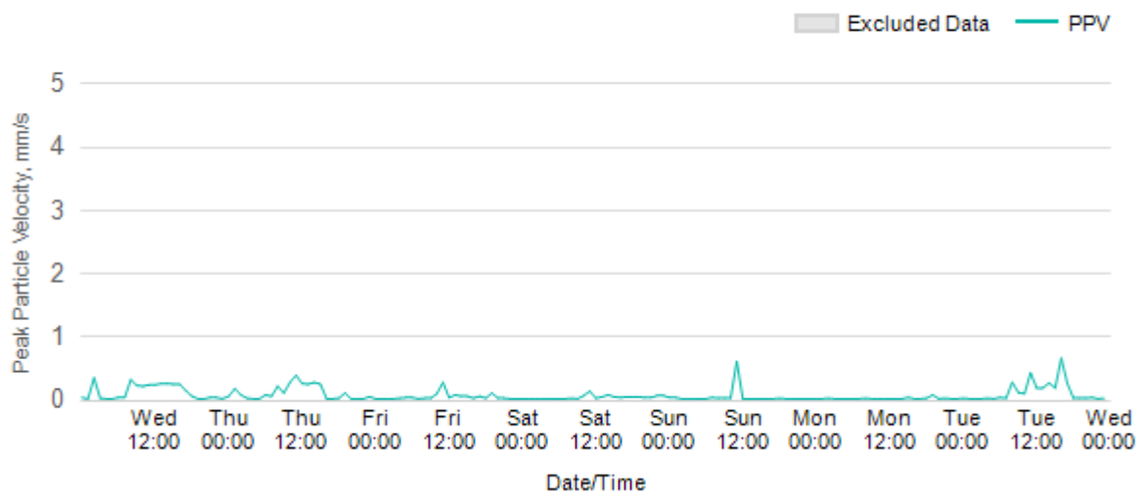
Worksite: WWHD Monitoring Ref: WWHD-V2 01 April 2026 to 07 April 2026



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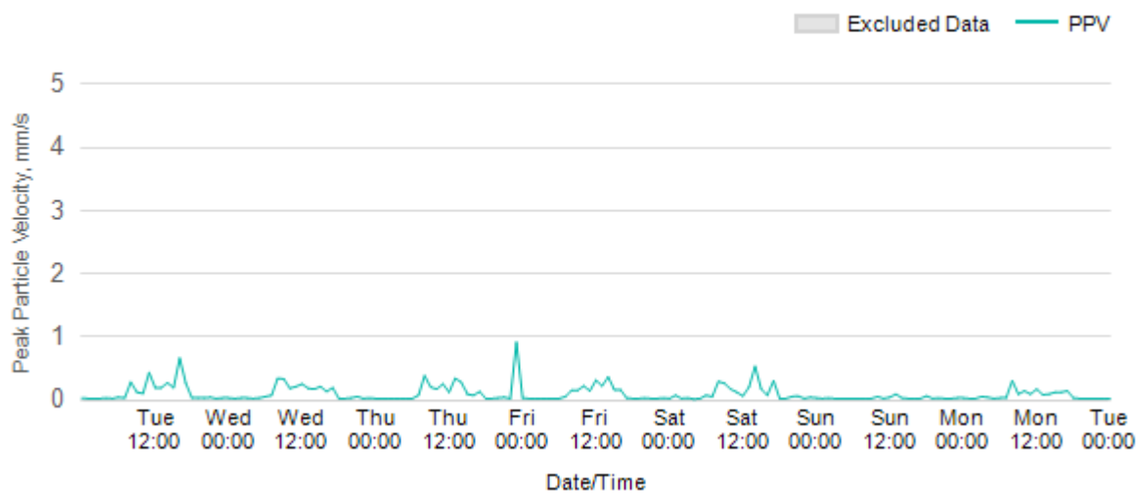

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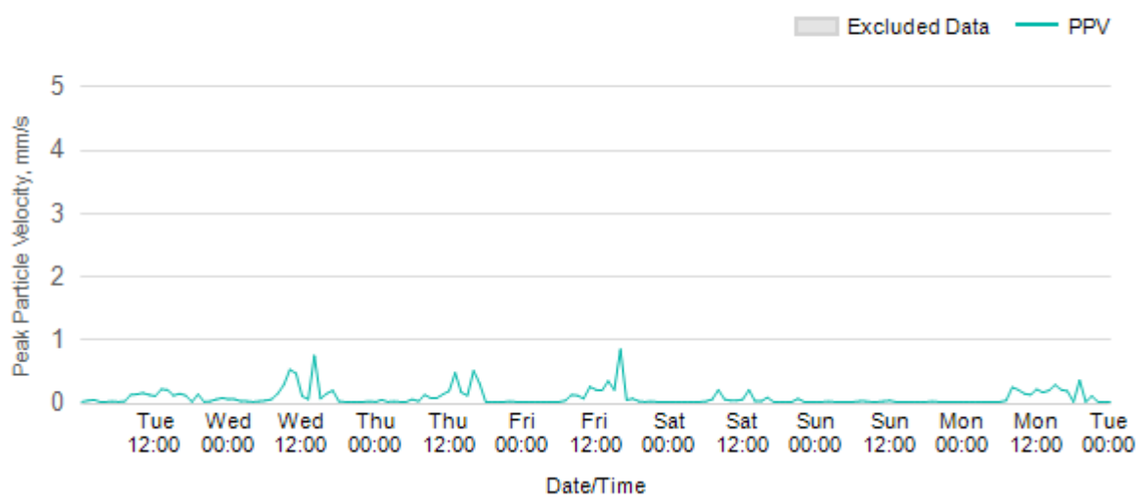

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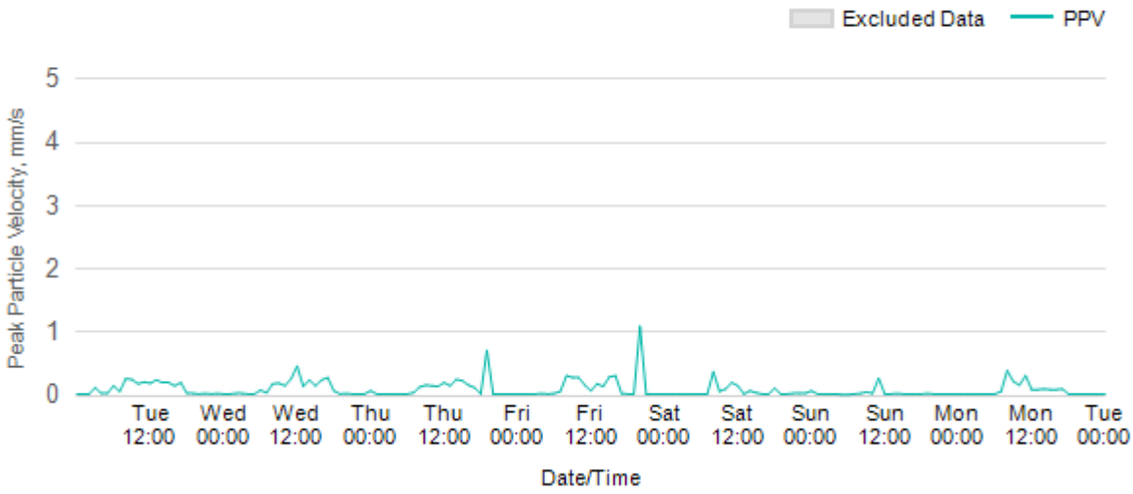

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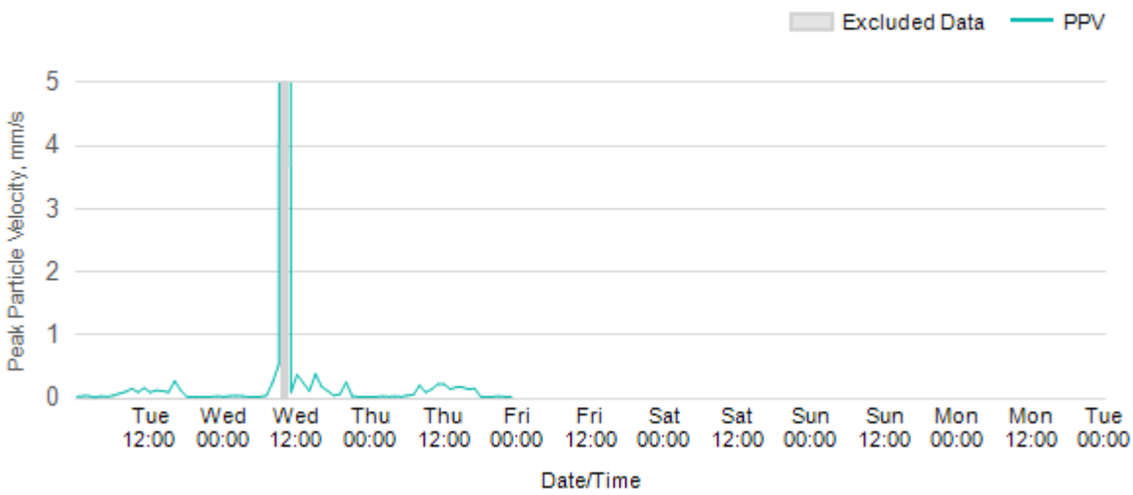

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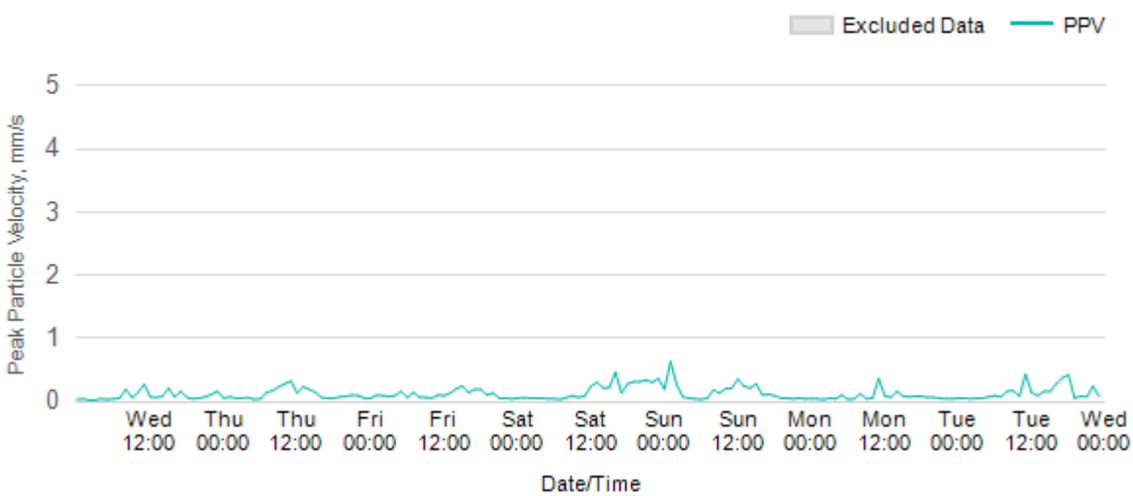

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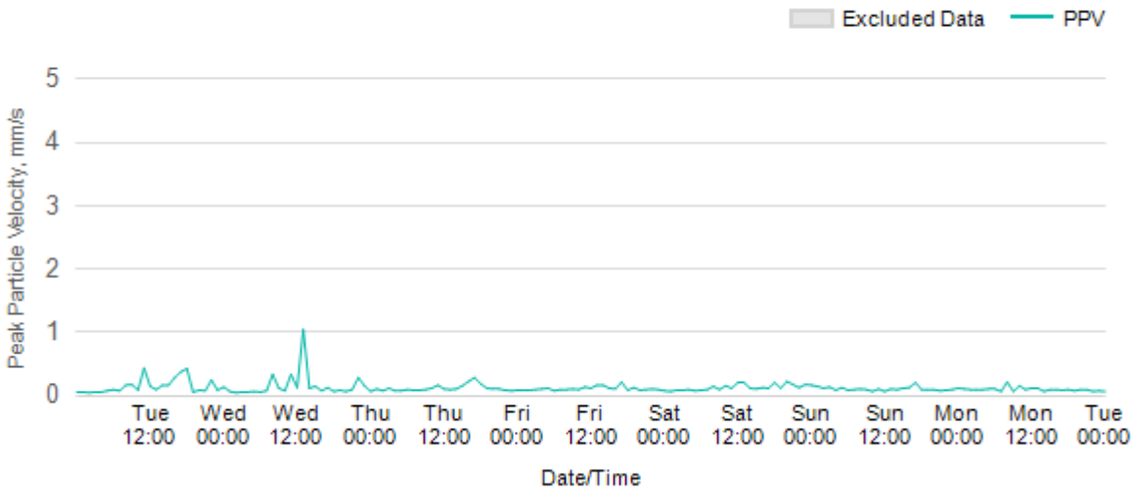

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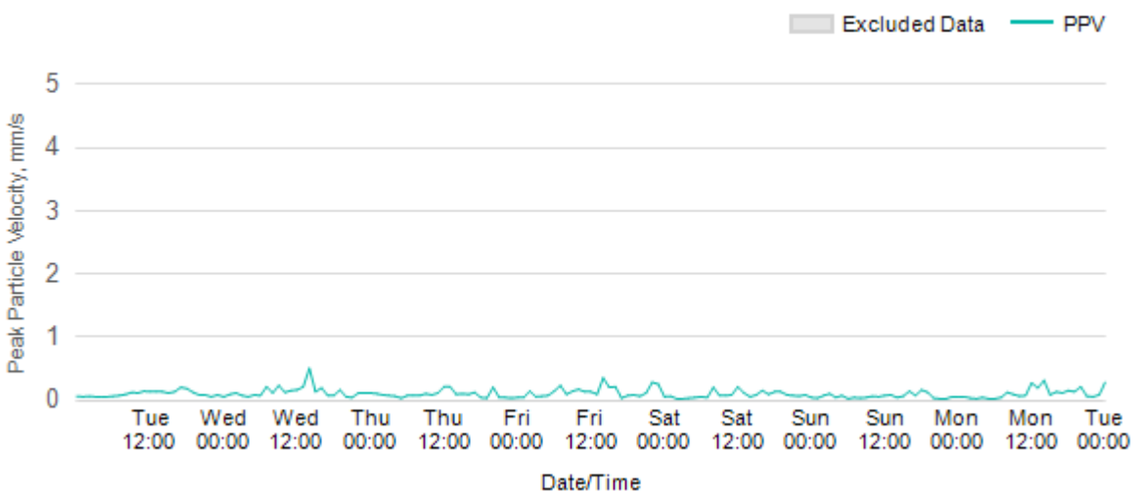

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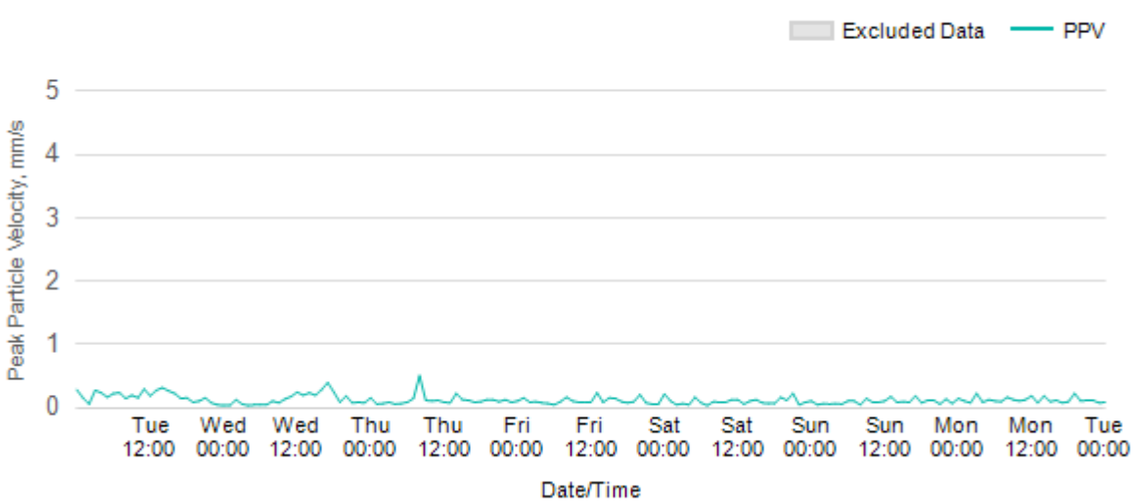

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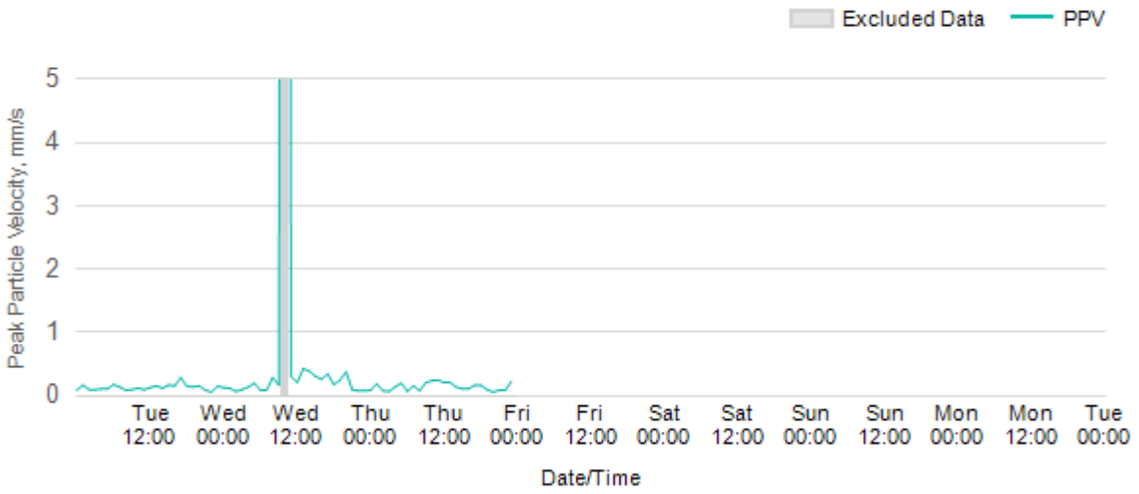

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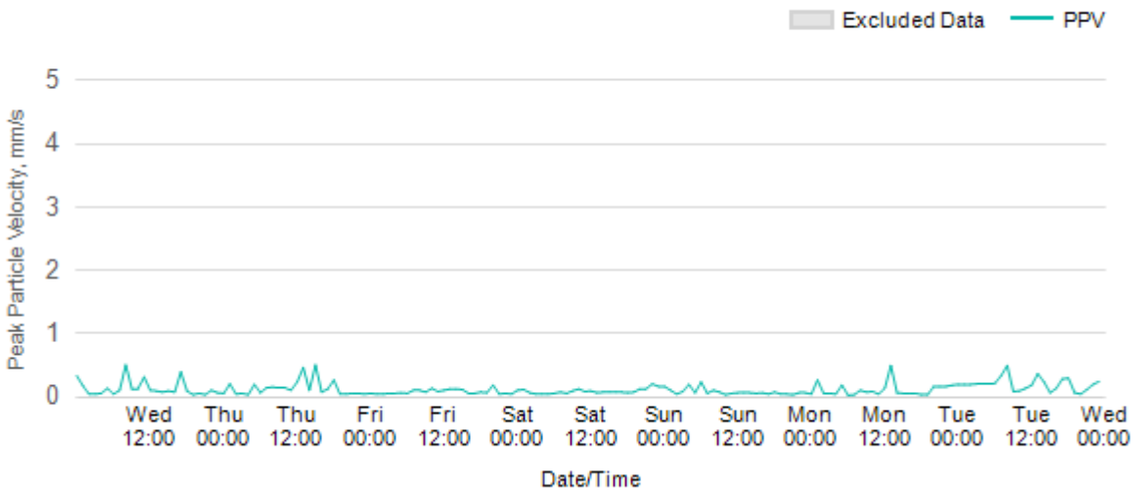

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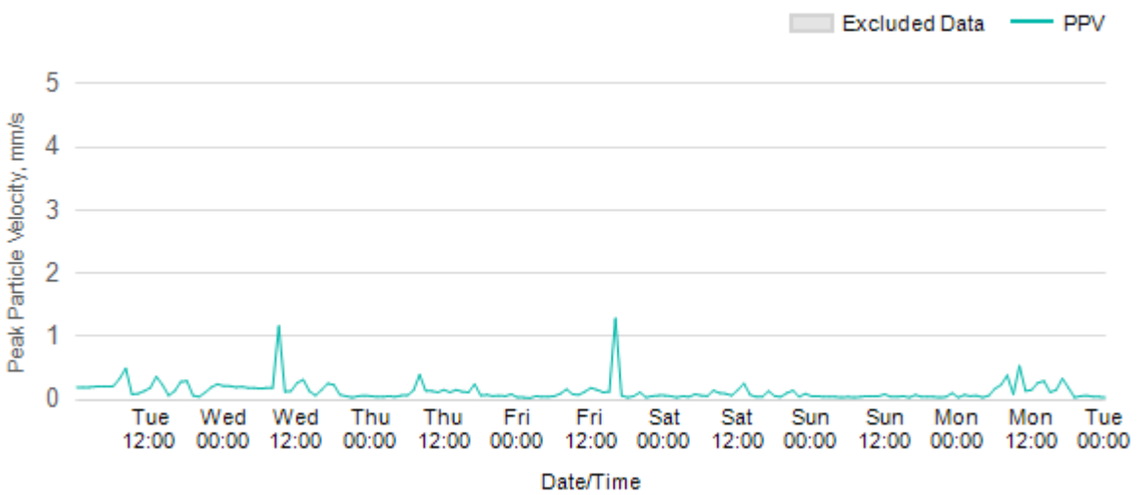

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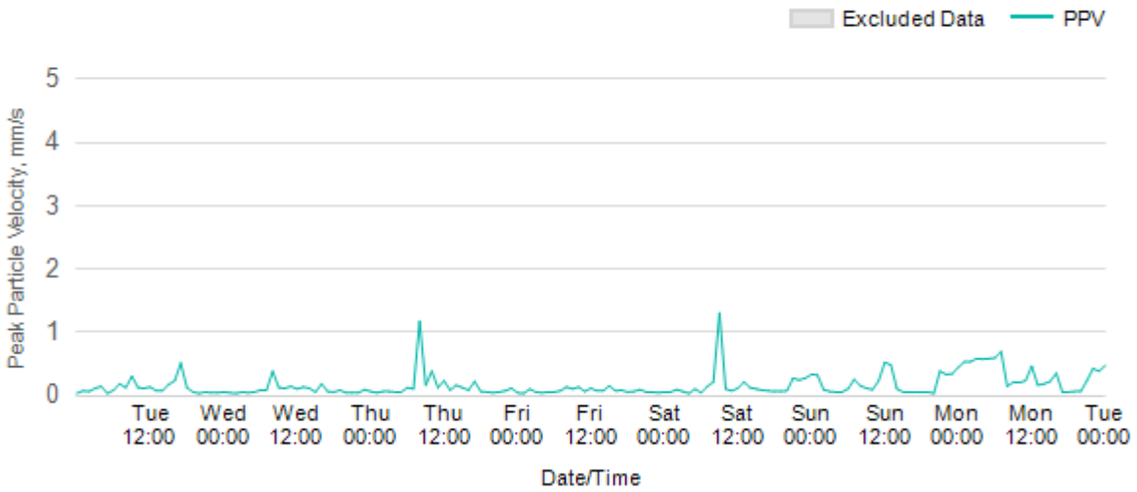

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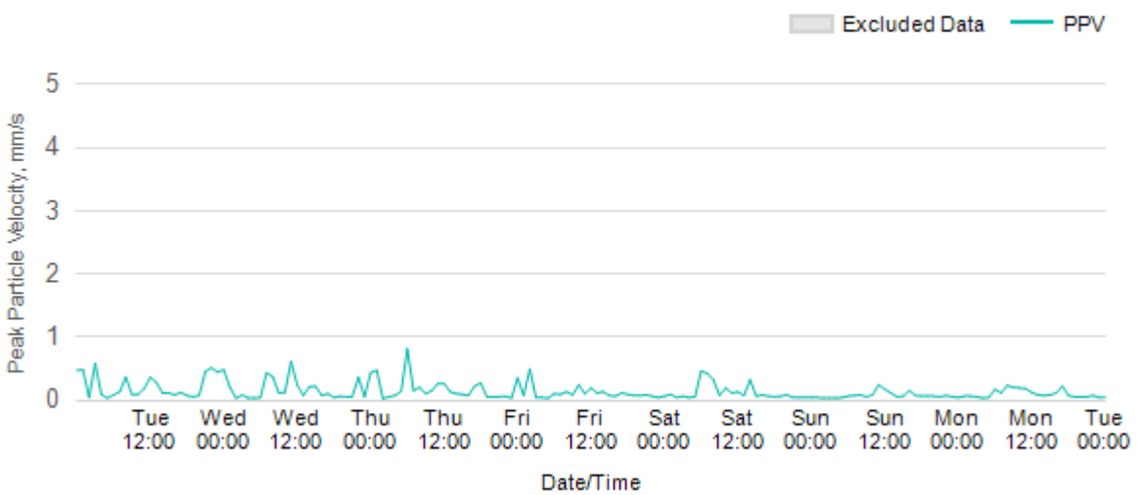

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